WAR DEPARTMENT BASIC FIELD MANUAL

FM 21-75

SCOUTING, PATROLLING, AND SNIPING

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(For explanation of symbols see FM 21–6.)

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PART ONE

SCOUTING

Chapter 1

GENERAL

1. IMPORTANCE. Commanders must have accurate, detailed, and timely information about the enemy, the terrain, and neighboring troops for successful combat. Well-trained scouts and capably led patrols are among the agencies which furnish them such information.

2. THE SCOUT. A scout is a soldier employed in reconnoitering under conditions which require exceptional ability in the use of arms, ground and cover, in movement, in observing, and in accurately reporting the results of his observation. Scouts usually operate in pairs.

3. QUALIFICATIONS. Although all soldiers should be able to act as scouts, some are better suited than others for this work. Men selected to be scouts should be reliable, persevering, intelligent, patient, and should be able to read and write clearly. They should be physically and mentally hard, have unimpaired vision and hearing, and be able to swim. Scouts must be resourceful and possess courage and initiative. They must be good shots and good

close-in fighters. Men with hay fever, night blindness and impaired sense of smell should not be given duty as scouts, for they will betray their own and others' presence.

4. TRAINING. In order to accomplish their mission of gathering information scouts must be able to operate by night and day over varied terrain and frequently close to or within the enemy position. This requires a high degree of training in concealment, movement, and observation. Scouts must be highly proficient in map reading, the use of the compass, simple sketching, and intelligent reporting. Scouting is best taught and best mastered by the applicatory system. (See FM 21-5.) Exercises in scouting are contained in chapter 7.

Chapter 2

SCOUTING BY DAY

Section I. COVER AND CONCEALMENT

5. COVER. Cover is protection against the fire of hostile weapons. A reverse slope will give protection from rifle or machine-gun fire, but will not give full protection against the high-angle fire of mortars or howitzers. A person well trained in use of cover can find some protection from such fire on reverse slopes. Many natural objects, trees, rocks, ditches, embankments, and folds in the ground, as well as shell holes, afford protection from hostile fire. Such cover is readily apparent to the untrained eye. The scout must learn to study the terrain in order to appreciate the cover afforded by the slightest depressions and humps in ground that appears flat to the untrained eye. By making full use of all natural cover and using the method of movement best adapted to the situation (pars. 8–11) he will have considerable protection while moving under hostile fire. When looking for cover, he studies the terrain from the enemy's point of view. Many natural objects will give cover and, if time and the mission permit, artificial means can be used to obtain or improve cover. (See par. 7.)

6. CONCEALMENT. Concealment is protection from hostile air or ground observation, but not from hostile fire. Concealment may be natural or improvised. Natural concealment is that found on the ground without any change; artificial concealment may be constructed from various materials such as grass, leaves, or burlap. The scout must become expert in the use of concealment.

a. The principles of individual concealment are:

(1) *Remain motionless while observing.* Anything in motion instantly attracts the eye; therefore, movement most readily reveals the scout's position. He may be perfectly concealed when motionless but be easily detected when he moves. *All unnecessary movement must be avoided*, and when it becomes necessary to move he should move silently from one concealed position to another. (See pars. 8–11.)

(2) *Use all available concealment.* The scout must always conduct himself as though he is being watched. He should use the best concealment available.

(3) *Observe from prone position.* The prone position offers a low silhouette which makes enemy detection difficult.

(4) *Expose nothing which glistens.* The reflection of the sun from any smooth surface will instantly attract enemy observation.

(5) *Blend with background.* Contrasting colors are quickly observed. Clothing that does not blend with the surroundings will disclose the scout's presence.

(6) *Stay in shade.* A scout's shadow in open terrain, particularly if it is long and in motion, attracts enemy attention.

(7) *Break regular outline of objects.* Figures on the skyline can be seen from great distances and are instantly recognized by their outlines. *Scouts keep off the skyline.* Disruptive painting makes it difficult for an enemy observer to recognize an object.

b. The following aids for concealment will help the scout to remain undiscovered (see fig. 1).

(1) Look around the right side of an object when observing, unless you can look through it.

(2) Fire around the right side of an object.

(3) Never look or fire over the top of concealment or cover unless the outline is broken.

(4) Upon the approach of an airplane, take a prone position face down, and remain motionless. If surprised by an airplane remain in place. COVER THE HANDS AND DO NOT LOOK UP.

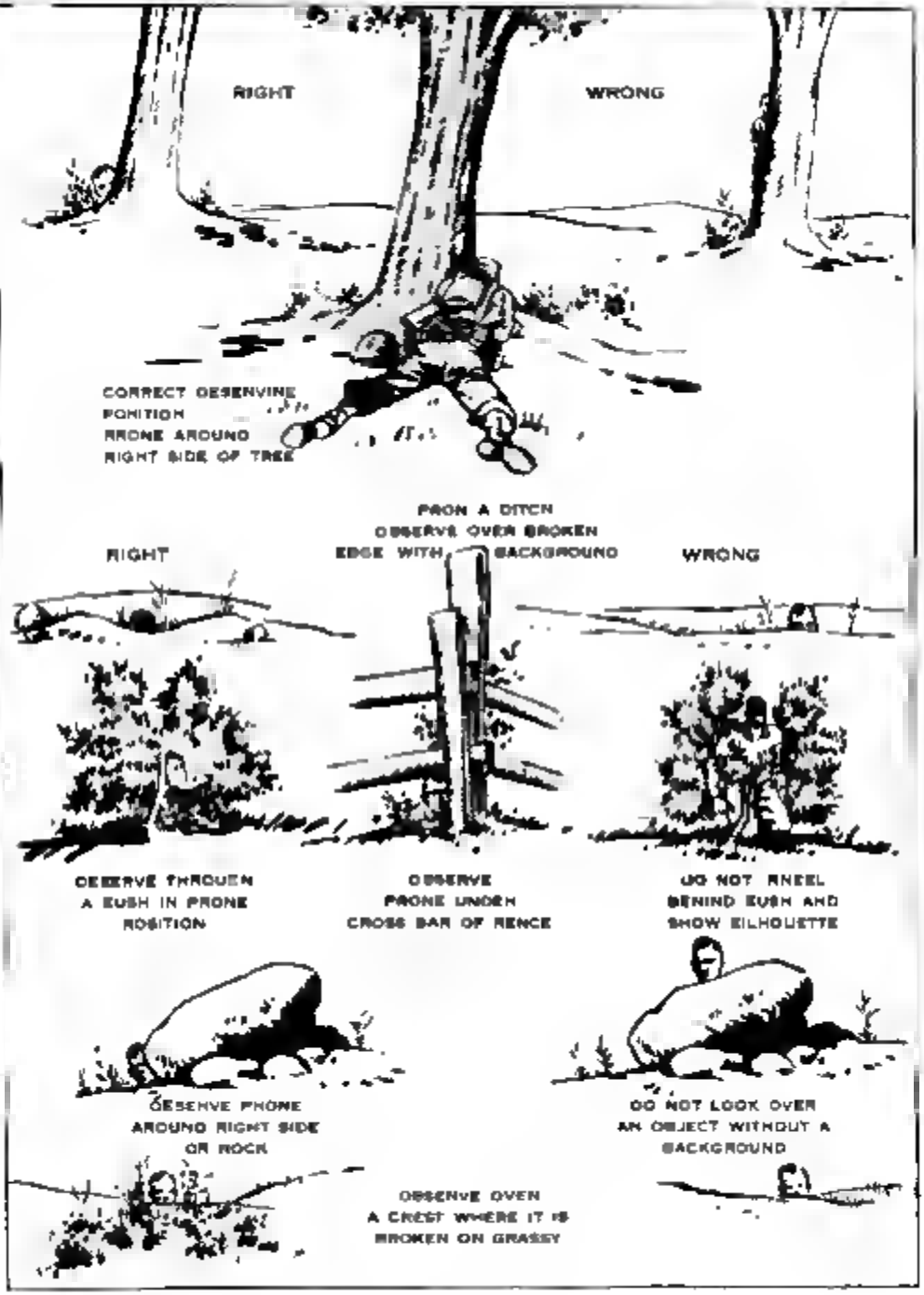


Figure 1. Correct and incorrect methods of observing.

(5) A small, thin bush in the shadow of a large bush makes a good observation point. Lone trees, or rocks, fence corners, and outstanding landmarks are easily picked up as targets by enemy observers.

(6) Paint splotches across the nose, mouth, cheek, and hands with lampblack, burned wood, cork, crankcase oil, grease paint or vaseline with soot on it. Remember that mud dries light and many black substances glisten and reflect light. (See par. 7.) Green grass, crushed in the hands will make a stain that lasts for about ten hours. No exposed skin should be overlooked in splotch painting; back of neck, chest, lower arms, and both backs and palms of hands should be painted. For a position among rocks or in open terrain, tone skin to a solid dark color. (See fig. 2.)

Figure 2. Correct method of darkening face.

(7) Cover any equipment that reflects sunlight.

(8) Use extra care when you are tired. Fatigue leads to carelessness.

(9) Camouflage clothing can be improvised from gunny sacks or sand bags.

(10) White garments blend in with snowy terrain, especially on a cloudy, windy day.

(11) An improvised suit can be made in the field, when a standard camouflage suit (jungle suit or snow suit) is not available, by painting ordinary fatigues in irregular splotches. A dye, paint, grease, or oil may be applied with an improvised dauber, or a pattern may be stamped on with a block of wood.

(12) A few leaves and a net eliminate shine from the helmet and break its outline. (See par. 7b (2) (*a*).)

7. CAMOUFLAGE. Camouflage means work done to provide protective concealment of military objects from enemy observation. It also refers to the materials used in this work. Camouflage is used not only to conceal an object but also to make an object look like something else. A scout's mission will usually require him to camouflage himself and his position.

a. Fundamentals. (1) Objects are identified by their form (outline), shadow, texture, and color.

(2) The principal purpose of camouflage in the field is to prevent direct observation.

(3) Camouflage must be executed simultaneously with the occupation of a position.

(4) The use of too much material must be avoided. Even when using natural materials, too much should not be used since it makes the object and its shadow appear darker than the surroundings, attracts the attention of a hostile observer, or shows up in a photograph, and thus defeats the purpose of the camouflage.

(5) When the camouflage work is completed, it should be inspected, if possible, from the enemy's point of view. This is the surest way to check its effectiveness.

b. Individual camouflage. (1) Successful individual camouflage involves four factors:

(*a*) Ability to recognize and take advantage of all forms of natural concealment available. (See par. 6.)

(*b*) Knowledge of the proper use of the available vegetation, soil, and debris for camouflage purposes.

(*c*) Knowledge of the proper use of artificial camouflage materials.

(*d*) Camouflage discipline.

(2) The scout must realize the dominant colors and pattern of the terrain and, in order to conform, must change the appearance of his clothing and equipment accordingly.

(*a*) Attempts to camouflage the helmet should be directed at breaking up its shape, smooth surface, and shadow. Mud, blotched irregularly on the helmet, will disguise its form and dull its surface. A helmet cover may be used. Such a cover may be improvised from a piece of cloth or burlap, about 20 inches square, irregularly colored to blend with the background, and provided with a drawstring so that it can be gathered under the edge of the helmet. Another means of disguising tha helmet is the garnished helmet net, shown in figure 3.

If helmet covers and nets are not available, a strand of wire or twine may he bound around tha helmet and foliage inserted under the wire. The foliage should be draped so as to break up the dark shadow of the visor across the face. It should not be allowed to stick up like plumes, because the slightest movement of the head will cause the foliage to move and thus give the position away.

(*b*) An issue dye may be used to darken faded equipment. (See TM 5–267.) For other ways to camouflage the person and clothing, see paragraph 6 *b*.

(*c*) Methods of painting the face are shown in figure 2. They are intended to have both a concealing effect and, in hand-to-hand combat, a psychological effect. Patterns should break telltale shadow lines and mask the eyes and cheekbones. Wide solid bands and regular designs should not be used. Individuals may have to assist each other in applying patterns. Darkening the face itself is a much more practical solution than nsing a hood, since the hood msy slip to one side or the other so that the scout's vision is cut off. This is especially dangerous in a situation demanding not only concealment, but immediate readiness for action. (See FM 5–20.)

(*d*) The straight line of the rifle, or other small arm, may be very conspicuous to an enemy sniper, or other close

Figure 3. Helmet camouflage.

observer. In the figure on the frontispiece of this manual, the barrel and hand guard of the rifle have been wrapped with tape of contrasting color to break the regular outline. On other terrain, strips of material normally used for garnishing nets and colored to blend in with the particular background can be used to advantage. Mud or dirt may be used to dull the reflecting surface of a polished stock, or a barrel from which the coloring has been worn. After use, the last six inches of the barrel of the M1 rifle shines brilliantly and is very conspicuous. Some benefit may be obtained by coating this part of the rifle with lampblack in the same way that a rifleman blackens his sights. The bayonet should be darkened or painted with a dull, dark paint.

Section II. MOVEMENT

8. PRINCIPLES OF MOVEMENT. a. The scout moves from one concealed location to another. When not changing his position he remains *motionless.* The fire of light automatic weapons makes the above more important than ever before.

b. To observe, he lifts his head slowly yet steadily, and without abrupt movements.

c. From each position he selects his next stopping place. He avoids isolated, conspicuous places of concealment. Before leaving one position he must make certain that his next stopping place does not contain an enemy. Every location from which the enemy may observe must be considered as actually occupied by the enemy.

d. When changing position by running he must spring up, run with body bent low, and drop to the earth quickly. Advantage must always be taken of walls, ditches, or similar cover. If close to the enemy, a slight rise may enable the scout to advance even closer by creeping or crawling.

9. AIDS TO MOVEMENT. a. (1) A scout should carry only necessities. Additional weight causes premature fa-

tigue and impedes free movement.

(2) A scout should not disturb birds or animals whose flight would betray his presence. If the scout should alarm birds or animals, he remains motionless under cover for a few minutes as attention may have been attracted to his position.

(3) Any incident which diverts attention, such as an airplane flight, a distant disturbance, or sudden bursts of fire, diverts observation from the scout. He moves during such incidents.

(4) Fog or even light haze offers concealment for movement.

(5) When in the presence of the enemy, it is best to swim a body of water at night. If necessary to do so in the daytime, a small raft for concealing the head may be made with a few sticks or brush and tufts of grass. In any case, the scout should try to improvise a float for his rifle and equipment.

(6) A scout moving along a beach should keep close to the water's edge. The waves and spray will help to conceal him from a boat offshore, and to wash away his footprints.

(7) When in tall grass or similar growth, the scout should move when the wind blows, changing direction frequently, as a straight route will be noticed more readily.

(8) He should avoid making tracks wherever possible, especially in snow.

(9) In returning to his own lines, the scout avoids the route used in going out.

(10) In crossing a road the scout selects a position with shadows, or near a bend, and crosses rapidly in a low position.

Figure 4. Prone position.

(11) In crossing a plowed field the scout follows the length of the furrow to avoid the bobbing movement caused by crossing the furrows.

b. Prone position. The body is flat. The left cheek is on the ground. The legs are extended and spread. The heels, turned in, touch the ground. If the rifle is carried, it is grasped in the right hand at the balance, muzzle to the front, operating handle up. (See fig. 4.)

c. Rushing from prone position. See figure 5.

① *The soldier starts the rush from the prone position.*

② *He slowly raises his head to select a new position.*

③ *He slowly lowers his head, draws arms inward, and cocks the right leg forward, preparing to rush.*

④ *With one movement, he raises his body by straightening his arms.*

⑤ *He springs to his feet, stepping off with his left foot.*

⑥ *He runs forward in a straight line, crouched low, to the new position.*

Figure 5. Rushing from prone position.

d. Dropping to prone position. See figure 6.

① *The soldier plants both feet in place.*

② *He drops to his knees, and at the same time slides his hand to the heel of his rifle.*

③ *He falls forward, breaking the fall with the butt of his rifle.*

④ *He then rolls into the firing position, or lies as flat as possible on the ground. If he thinks he has been observed, and concealment exists, he moves a short distance toward a flank, moving in the most practicable manner.*

Figure 6. Dropping to prone position.

e. **Creeping.** See figure 7.

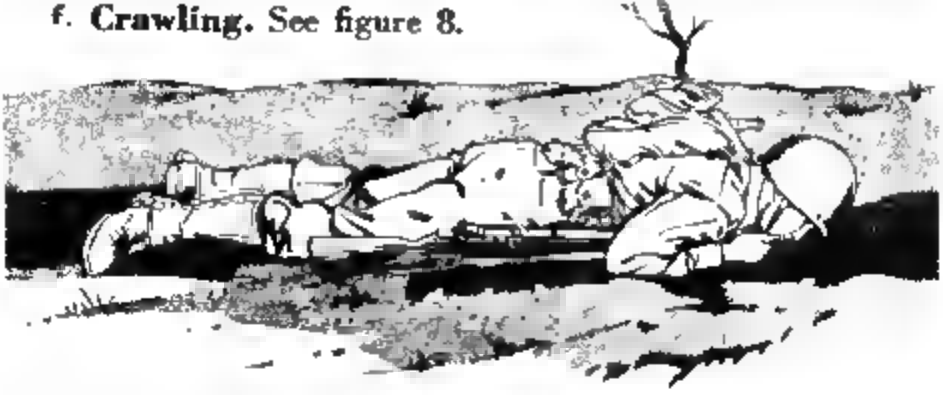
① *The body is kept free of the ground, and the weight of the body rests on the forearms and lower legs. The rifle is cradled in the arms, so that the muzzle is kept out of the dirt. Knees must be kept well behind the buttocks.*

② *The soldier moves forward by alternately advancing the elbows and knees. The left elbow is advanced at the same time as the right knee.*

③ *In creeping, the soldier presents a higher silhouette than in crawling, but movement is faster.*

Figure 7. Creeping.

f. **Crawling.** See figure 8.



① *The body is as flat as possible against the ground. The cheek is flat against the ground. The rifle is carried at the balance, or dragged along on the toe of the butt with the thumb or forefinger over the muzzle. Care must be taken to keep the rifle muzzle out of the dirt*

② *To move forward, the soldier pushes his arms forward and cocks one leg forward.*

③ *He pulls himself forward with his arms and pushes with the forward leg*

④ The soldier may move by pushing with one leg only, or may move faster (but be more exposed) by alternately pushing with either leg. Figure 8. Crawling.

10. DETERMINING DIRECTION WITHOUT COMPASS. a. General. A scout should rarely, if ever, be without a compass. If he is, his most common means of assistance are heavenly bodies, the prevailing wind, and geographic features. To the experienced scout other means, such as natural signs, present themselves.

b. By watch and sun. Within latitudes of the north temperate zone, which include the continental limits of the United States, the following method, correct to within 8°, may be used from about 0600 to 1800. Set your watch at correct sun time for that locality, then hold it horizontally, face up, and point the hour hand at the sun; a line from the center of the dial passing halfway between the hour hand and 12 o'clock (bisecting the smaller arc) points south. Look along this line and pick out some object in line on the ground. (See fig. 9.)

c. By the stars. The two stars at the end of the bowl of the Big Dipper, known as the "pointers", indicate at any hour the position of the North Star. The Big Dipper revolves around the North Star and the pointers continue to indicate its position. The scout should remember that although the Big Dipper changes position in the sky the "pointers" continue to point to the North Star. To locate the North Star look out for a distance equal to five times the distance between the pointers in line with the pointers in the direction

in which water would flow out of the dipper. Another constellation, Cassiopeia, may assist in locating the North Star. The five principal stars of Cassiopeia form a "W." This constellation is opposite the North Star from the Big Dipper. Note on the chart that the distance from the North Star to Cassiopeia and from the North Star to the Big Dipper is about the same. Cassiopeia also revolves about the North Star. The top of the "W" points generally in the direction of the North Star and the Big Dipper. The direction of the North Star is true north. (See figure 10.)

Figure 9. Sun and watch method of determining direction.

Figure 10. Locating the North Star.

If the scout is anywhere south of the equator, he will not be able to see the North Star. In this case the constellation known as the Southern Cross is used to indicate south. The stars in the long axis of the cross act as pointers, the foot of the cross pointing to the South Star, which is as far

from the foot of the cross as about five times the length of the cross itself. (See fig. 11.)

d. By geographic features. A high mountain may be used to guide a scout for several days. The edge of a forest, a highway, and the general direction of the flow of streams are other terrain features often used to guide on.

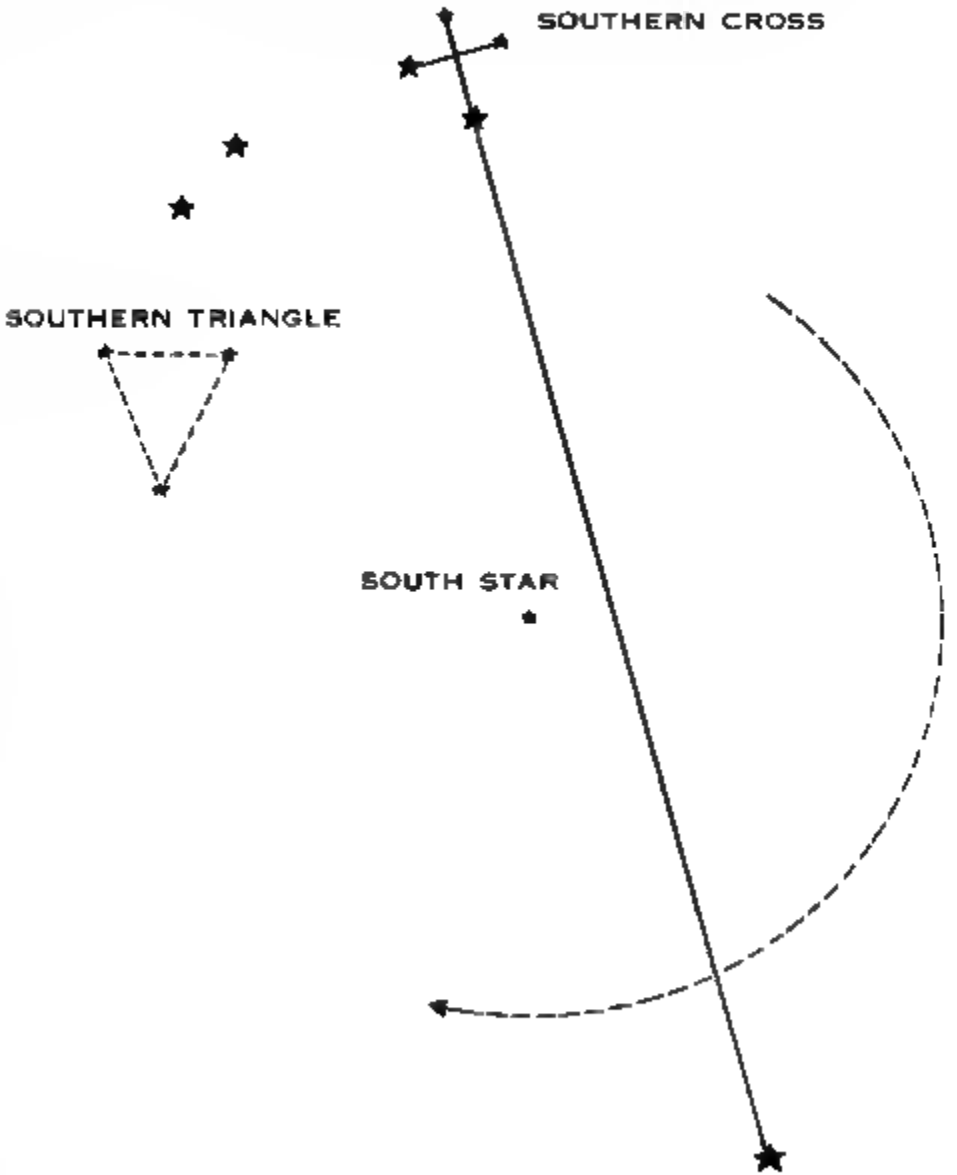


Figure 11. Locating the South Star.

e. By other means. Railways, smoke of cities, towers, telegraph lines, and the prevailing wind furnish other means to indicate direction.

11. ROUTES. a. Considerations. Before starting on his mission, the scout should, if a map or aerial photo is available, select his route according to the cover shown and the activity of the enemy. He may have to make wide detours around open spaces or those containing enemy patrols or suspected troops. His advance will rarely be in a straight line, for he must move along hedges, hollows, woods, and ravines which run parallel, or nearly so, to his course. (See fig. 12.) The scout should look back occasionally to note the relative position of landmarks, the slope of the ground, and the direction of streams. In picking a route from a map, the weather for the past few days must be considered for its effect on routes and probable enemy operations. This is particularly necessary if the route traverses low grounds, creek bottoms, or swamps. Brush is generally thicker in valleys and ravines than on summits and ridges. (This must be considered in night scouting when silence is essential.) The edge of a swamp offers a covered route. Many small features not shown on the map offer cover.

b. Return route. The scout should not return by the same route. His best guide to his return is his memory of the landmarks passed on the way out. He must cultivate the ability to recognize points he has once seen.

c. To choose routes from a map. Maps or aerial photos should be used to select covered routes, observation points, and to plan actions in advance. Before starting on his mission the scout should carefully study a map of the country to be traversed and fix in mind the general features, streams, ridges to be crossed, and their relation to the general direction to be taken. He should make notes of terrain features and landmarks along his proposed route and rely on his notes for guidance. He should—

(1) Decide where he must go to accomplish his mission.

(2) Study the map until he can picture in his mind the ground he must traverse. (See fig. 13.)

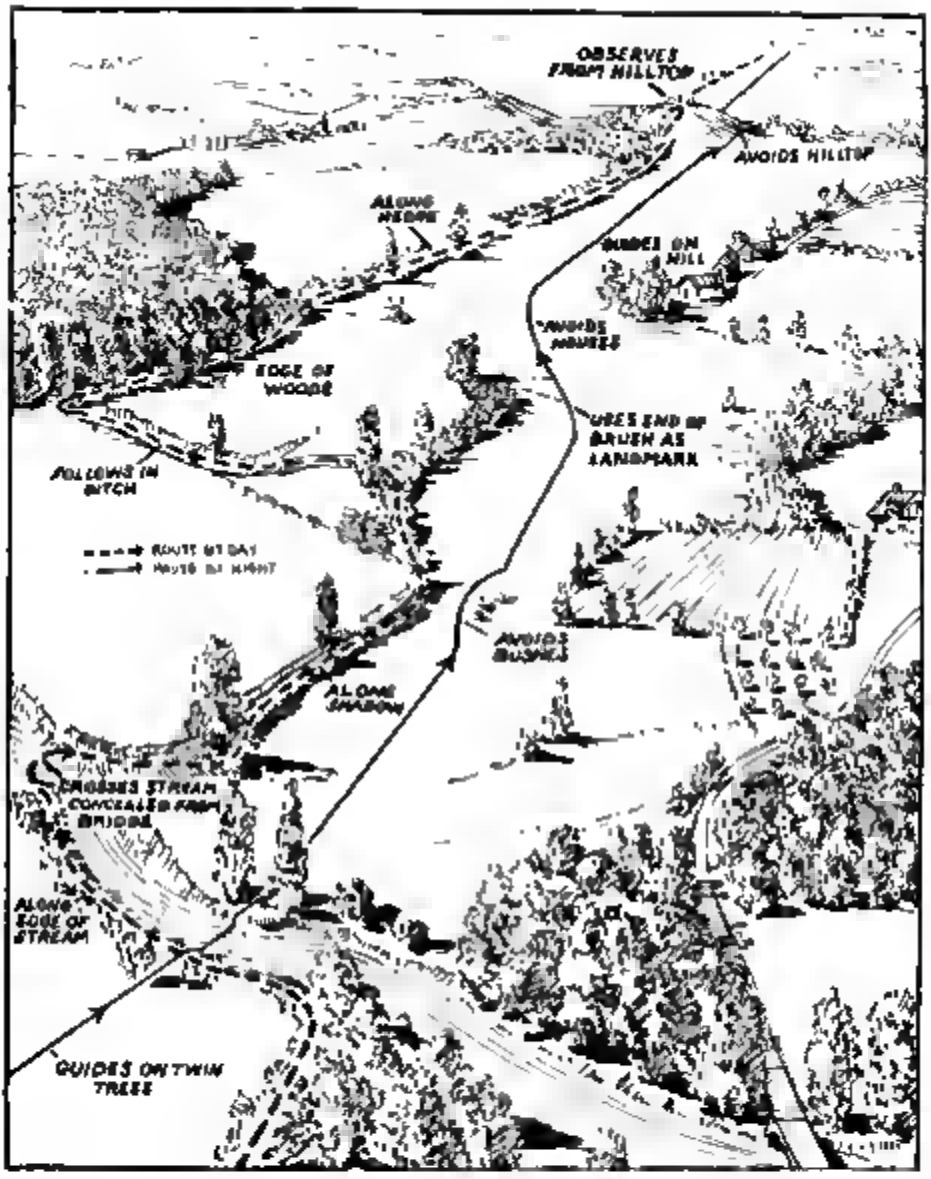


Figure 12. Day and night routes.

(3) Note the probable dangerous areas such as crossroads, villages, or high points.

(4) Make a plan of procedure.

(5) Select a route following low ground, hollows, and woods.

(6) Pick intermediate observation points.

(7) Determine the compass direction at the start and a reading for each change of direction.

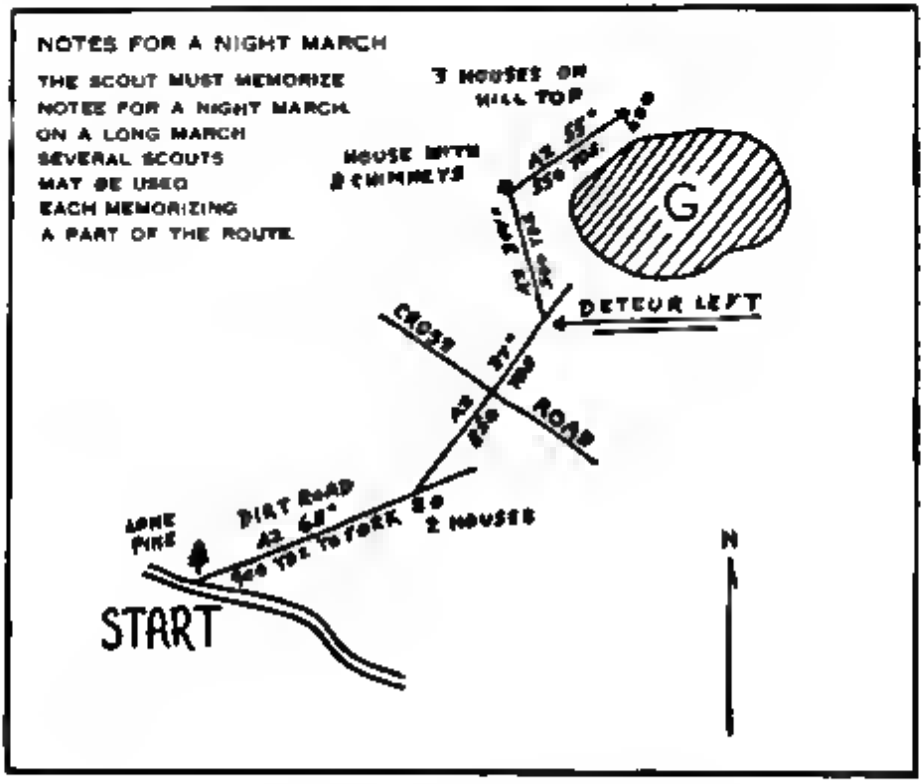


Figure 13. Choice of a route from a map.

Section III. RECONNAISSANCE

12. GENERAL. Prior to starting on his reconnaissance the scout should fix in mind firmly the general direction of his travel and any other means of information that may assist him in finding his way out and his way back. Knowledge of the *stream lines* is the first essential to an intelligent idea of the country. En route he must bear in mind the changes of direction he makes. He must look back frequently

on his way, so as to impress on his memory the appearance of the landscape as it will look to him on his return journey. This may be of great benefit to him to keep him from losing his way, especially if he is pursued. The experience and training of the scout will be his best guide in reconnoitering his objectives or the various other feautres that he encounters. Only suggestions can be offered in this manual. As a general rule, the scout first makes a distant observation of the place from a concealed position to discover if the enemy is in possession. Then, if his mission demands a *closer reconnaissance*, he studies the intervening terrain in order to determine the best means of approach. The scout avoids places such as houses, villages, and clumps of trees, unless his mission requires him to approach or enter them. The suggestions made below may influence or govern the scout in any close reconnaissance he must make.

a. House. A scout acting alone approaches a house rapidly, so as to reach it before the occupants can prepare to resist him. If there are two or more scouts, they approach rapidly from slightly different directions. Only one enters. The other(s) remain outside prepared to fight. Another method is for only one or two of a group to approach the house. The others remain under cover a short distance away, in readiness to open fire on any one offering resistance.

b. Village. A village or other inhabited area should be avoided by a scout unless his mission requires him to enter it.

c. Woods. A clump of trees is approached in the same manner as a house. In his observation of a large wood the scout may receive a hint of the presence of the enemy by smoke rising, or noticing the flight of birds, or the running of animals. A wood should be entered with cautioo. Once within the wood, the scout should occasionally stop to listen as well as to look, as he will frequently hear an enemy before he sees him.

d. Hostile bivouac. By skillful use of cover and concealment, the scout may work his way near enough to a hostile bivouac to observe indications which will enable the scout to estimate the enemy strength. (See par. 39.)

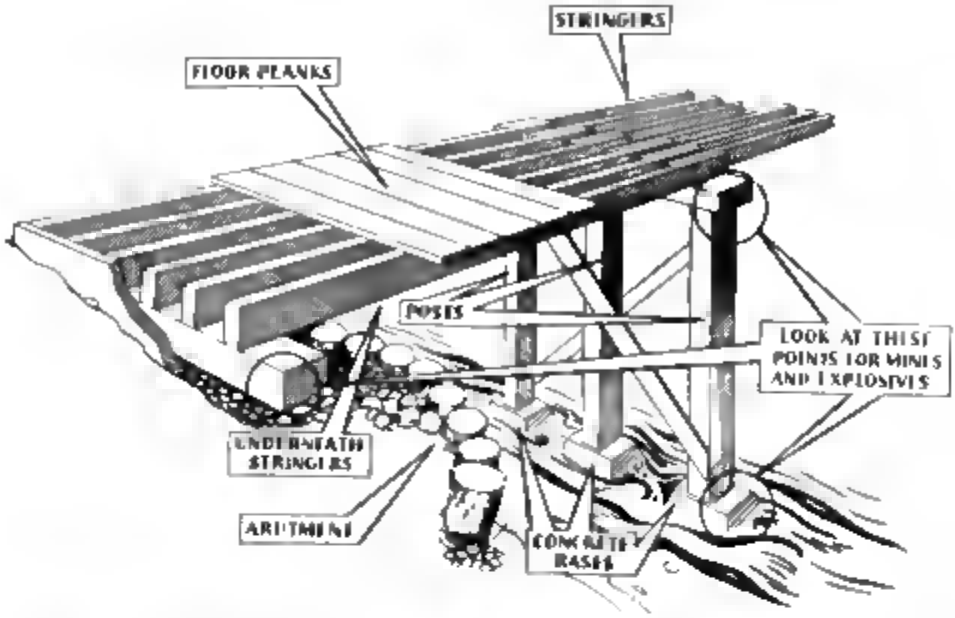


Figure 14 Points to be noted on bridge inspection.

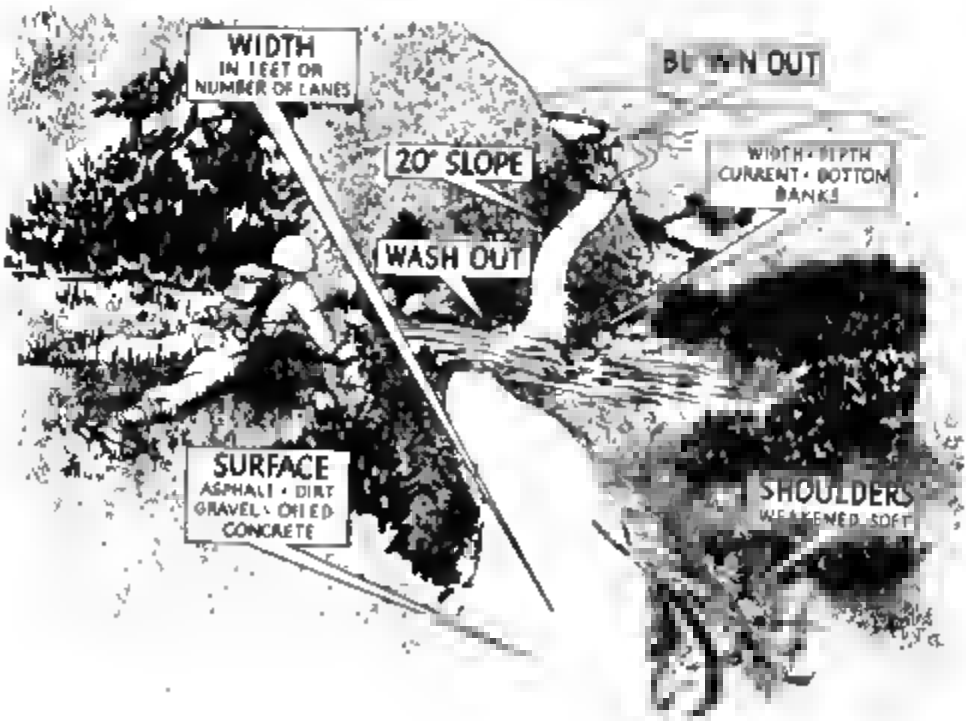


Figure 15. Points to be noted about roads.

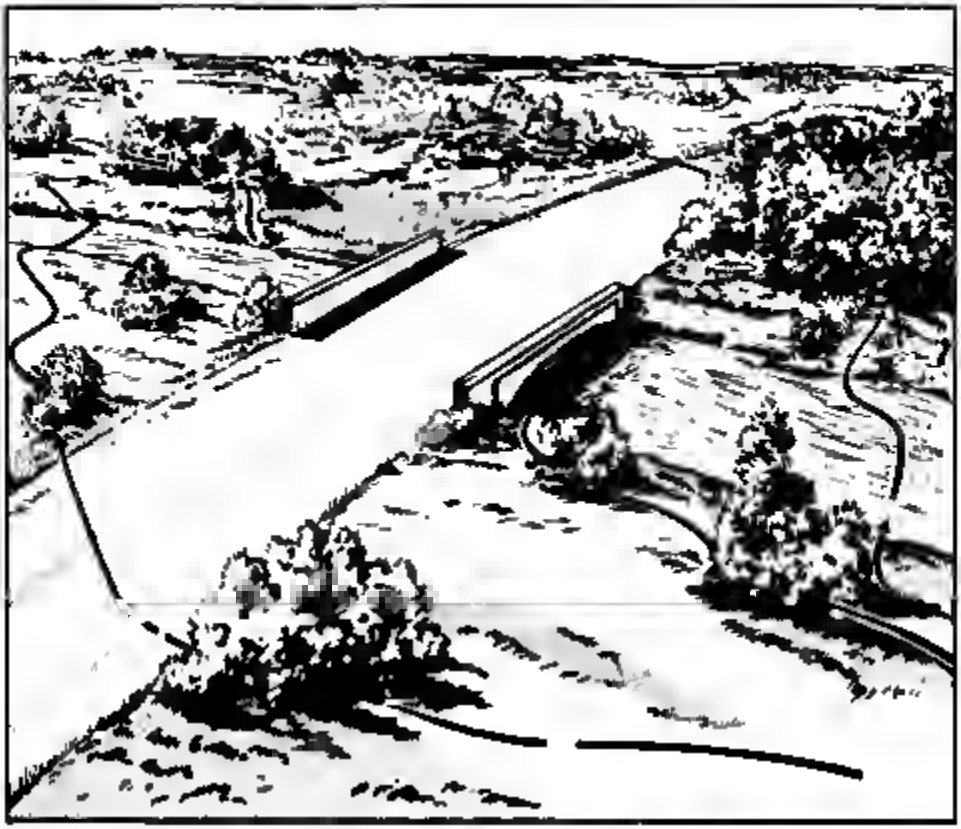


Figure 16. Possible routes for a scout to cross stream. The route under the bridge is the best.

e. Abandoned bivouac. An abandoned bivouac may be examined thoroughly and a very accurate estimate formed as to the size of the force that camped there. The condition of ashes and appearance of tracks, when considered in connection with weather, may give an idea as to when the bivouac was occupied. Letters, insignia, equipment, and other articles may reveal the enemy discipline and organizations. (See pars. 38 and 46.)

f. Moving troops. Moving troops may often be observed from hills, edges of woodland, towers, and other similar points. The scout must exercise great prudence and watchfulness to avoid being captured or driven off prematurely by the enemy security patrols.

g. Stream crossings and roads. When the crossing does not appear to be held by the enemy, the scout should advance upon it rapidly. If there are two or more scouts, one or two should cross while the remainder protects him. When the first scout gets over safely, he takes a position to cover the other(s) who follow. The scout should note the length, width, and approaches of a bridge and road conditions and be able to report upon its suitability for use by forces of the various arms. The depth of the water, its width, its velocity, bottom, and approaches should be observed and noted. (See figs. 14 and 15.) If the crossing is held by the enemy, the scout seeks another crossing or dashes across, trusting to surprise and rapidity of movement for success. (See fig. 16.)

Chapter 3

SCOUTING BY NIGHT

Section I. GENERAL

13. NIGHT VISION. a. General. The human eye adapts itself for seeing in the dark by enlarging the pupil in order to let in more light. Night vision decreases with fatigue and is sometimes affected by vitamin deficiency.

b. Preparations. Before leaving on a night mission the scout should prepare his eyes by remaining in complete darkness for about an hour if possible. If he cannot stay in darkness he should keep out of the lights around him as long as possible and avoid looking straight at them, use red goggles or red light, or keep one eye covered. If the eyes are exposed to light, even though red, full night vision is retarded or lost. (See par. 37b.)

c. Training. Practice is necessary in order to acquire the ability to use and care for the eyes at night. Exercises are contained in chapter 7.

14. APPEARANCE OF OBJECTS. Darkness not only makes it difficult or impossible to see objects, it also changes their appearance and apparent size, and details are blotted out. A tree seen against the night sky looks much smaller than it does in the daytime because the twigs at the tips of the branches cannot be seen at night. For the same reason, an airplane caught in the beam of a searchlight looks larger than the same plane seen as a black mass against a dimly lighted sky. Under ordinary conditions, a match can be seen from a plane or from the ground for several miles. Under ideal conditions of darkness and atmosphere, a candle is said to be visible for ten miles. The scout has to train himself to identify objects by black outlines at night.

He cannot depend upon details that are visible in daylight for identification. Night glasses make it possible to see objects or parts ol objects that would be otherwise too small to be seen at all, and help to identily objects already spotted.

15. SOUNDS. A scout must depend largely upon his ears to obtain information ol the enemy at night. Similarly, the enemy may detect him if he makes any noise. The scout must stop frequently to listen, removing his helmet (if worn) to eliminate unnatural or distorted sounds. The ability to listen for long periods in perfect silence must be cultivated by constant practice. Sound travels approximately 370 yards a second. When a scout sees a flash, he can often estimate the range to the weapon. He counts rapidly during the time interval between the flash and the hearing of the report. If he counts rapidly to three, for example, the range is approximately 300 yards. The correct cadence must be determined by actual practice at known distances. Sounds are transmitted a greater distance in wet weather and at night than in dry weather and in the daytime. If the scout holds his ear close to the ground, he can hear such sounds as the walking of persons and the noise of vehicles much better. The scout must he trained to identify and estimate the direction and distance to various common noises made at night by troops in the field.

16. SMELLS. The scout's sense of smell may warn him of enemy fires, cooking, picket lines, motor parks, gasoline and oil engines, bodies of water, and the presence of troops generally. Types ol shells may also be identified by the characteristic odors ol their bursts.

17. TOUCH. The scout must be able to feel and to recognize objects in the dark. He must be able to adjust and operate his equipment quietly by the sense of touch alone.

Section II. CONCEALMENT

18. GENERAL. Although total darkness provides concealment, there will be many bright nights when the scout must observe the same principles of concealment as in the daytime. (See par. 6.) In addition, he must observe the principles of night movement (see par. 19) so that his presence is not disclosed by noise when he is close to the enemy.

Section III. MOVEMENT

19. PRINCIPLES OF MOVEMENT. To accomplish a scouting mission at night, the scout must be able to move in absolute silence, for his security depends upon silent movement.

a. The scout operates by moving by bounds, preferably determined in advance. Each bound should follow some terrain feature which serves as a guide. When there are no terrain features to serve as guides, the scout moves in a straight or nearly straight line, from one defined locality to another, or maintains direction by use of the compass.

b. The scout seldom runs at night except in an emergency.

c. Scouts should stop frequently and listen intently at each stop.

d. Scouts should take advantage of sounds, which may distract the enemy, to cover up their own movements.

e. If the scout falls, he must fall silently without making an outcry.

20. AIDS TO MOVEMENT. The following aids to movement will assist the scout in accomplishing his mission:

a. Walking at night. In walking at night, the weight of the body is balanced on the rear foot, until a secure spot is found for the forward foot. The forward foot is lifted high to clear any stiff grass, brush, or other obstruction. With the weight still balanced on the rear foot, the forward foot is lowered gently, toe first (because the toe

Figure 17. Walking at night.

is more sensitive) to locate a spot free of any rocks, twigs, or other debris that might make a noise. Then the heel is lowered gently, the weight is balanced on that foot, and the other foot is advanced. (See fig. 17.)

Figure 18. Dropping to prone position at night.

b. **Dropping to prone position at night** (see fig. 18). The rifle is held as shown in the figure. The soldier goes down slowly on his right knee, stopping himself with his left hand. He moves his left leg carefully to the rear, and places his right leg beside the left. He then rolls into firing position, or lies flat against the ground.

c. **Creeping at night** (see fig. 19). The soldier is down "on all fours," the weight of his body resting on his hands and knees. The rifle is on the ground to his right, operating handle up. With his left hand he feels for a place free of rocks or twigs in front of his left knee. He leaves his left hand in place, and moves that knee forward into the place he has cleared. He then repeats the process with the right hand and knee. As necessary, he clears a place for his rifle and lifts it forward.

d. **Crawling at night.** Crawling at night is comparable to the daytime method of crawling. Movement is slow and tedious, since it must be done silently.

21. AIDS TO NIGHT SCOUTING. The scout will find the following aids of value:

a. Tobacco chewing should not be allowed.

b. A threatened sneeze may often be stopped by pressing upward with the fingers against the nostrils.

c. A threatened cough may often be stopped by a slight pressure on the "Adam's apple."

d. A ringing noise in the head which interferes with hearing may often be stopped by yawning.

e. If it is necessary to whisper, expel most of the air from the lungs to avoid a hissing sound.

f. Keep out of depressions in damp and rainy weather when the enemy has been using gas; they may contain mustard gas.

g. Whenever the scout stops, he *looks* and *listens*.

h. Do not strain the eyes by concentrating on one object too long. If objects blur, lower the eyelids slowly, keep the eyes closed for a few seconds, then open them slowly. (See par. 37.)

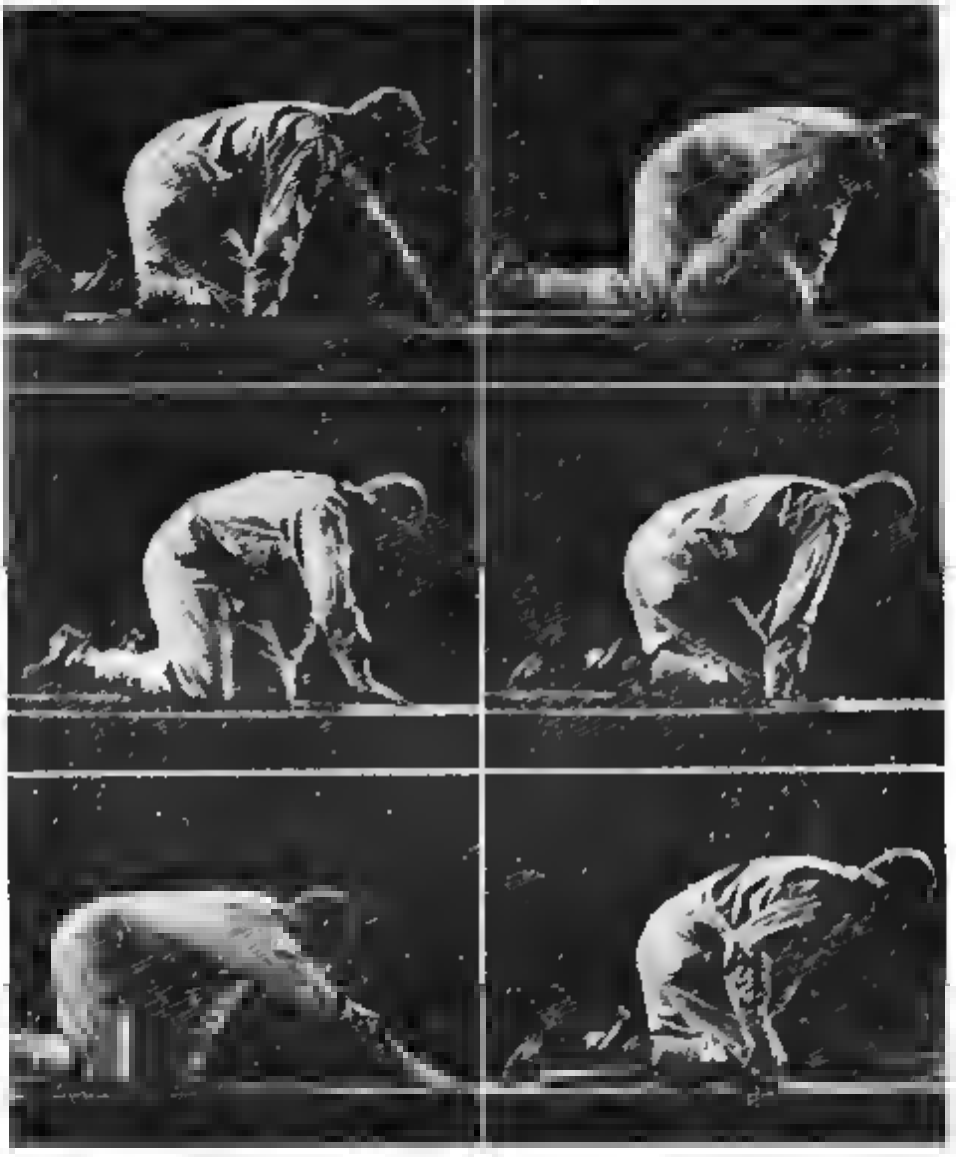


Figure 19. Creeping at night.

i. Sounds of persons walking are heard better if the ear is held close to the ground. Sounds are transmitted a greater distance in wet weather than in dry.

j. If caught in a flare, the scout FREEZES, or he may drop quickly in the split second after flare lights while enemy is blinded. If the scout hears the flare discharged he

should drop to the prone position before it bursts. Never look at a flare. (See par. 13.) A flare which bursts in the air or on the ground behind a scout makes it easier for the enemy to see him.

k. All patrols or persons met should be considered unfriendly until the contrary is established. When some one is met, crouch low to get him silhouetted against the sky and at the same time to offer him an indistinct target if he proves to be an enemy. If fired on, do not return the fire except to avoid capture.

l. Luminous compasses or watches should be carried in a manner which covers the luminous dial.

m. The eyelids are kept partially closed to prevent light reflection.

n. If necessary to follow a gravel road, silent walking is easiest along the edges.

22. ROUTES. a. Principles. Before starting on a night mission the scout should, during daylight, study the ground in detail from an observation post, from airplane photographs and from a map, and make certain of compass direction, prominent points, bounds, outguards and friendly patrols.

b. Application. (1) The route of advance should be below the skyline.

(2) Unless the moon is bright, the scout should not pass through woods, ditches, ravines, and brush at night for the noise made in moving through them might lead to discovery.

(3) The scout working at night should *always* return by a route different from his advance, for in the darkness the enemy may easily approach the scout's own lines and wait in ambush for his return. The same route should not be used on successive nights.

23. TO ESTIMATE DIRECTION AT NIGHT. a. A scout who has no compass to use at night must understand other means of keeping his direction. Useful means for keeping direction at night are the direction of the wind, stream courses, stars, and prominent points in the skyline.

b. Notes made from a map may be helpful in some cases.

c. The North Star and Cassiopeia are excellent reference points and every scout should be able to recognize them. (See par. 10c.) (See fig. 11.)

d. A prominent object on the skyline or a star near the horizon in the direction of advance may be used as a guide.

e. Signal lights may be sent up from the outguards to guide scouts who are working out in front.

24. RECONNAISSANCE. Before starting a night reconnaissance the scout should, whenever possible, supplement his map and aerial photo study with a daylight study, from a vantage point, of the actual ground over which he will operate. He can thus determine each hound or terrain feature. Many features on the ground are not shown on a map. Delirate reconnaissance missions can best be rarried out on dark, stormy nights. When the enemy is using many flares, he probably has few patrols out; when he is not using flares his patrols are likely to be numerous. A scout

Figure 20. Passing over wire.

should not enter a trench unless his mission requires it, or unless he is ordered to do so; in such cases he should first jump the trench, stop to listen, and enter it from the rear.

25. PASSING OBSTACLES. a. Principles. All movement near wire is slow and cautious because of the danger of booby traps and mines. Wherever possible, the scout avoids enemy obstacles which are frequently covered by fire. He may expect to find enemy detachments covering obstacles.

b. Passing wire. (1) *Over wire.* When the scout is without arms, he walks over low wire at night by grasping the first strand with one hand; with the other hand, he reaches forward and feels for a clear spot on the ground where his foot can be placed without touching another strand or a mine or booby trap or any other object that might make a noise. He lifts his foot up and over, close to the hand grasping the wire, and places it beside his other hand, to avoid catching it upon another strand. If armed, the scout may sling his rifle across his back, and proceed as above. To cross in the daytime, the scout keeps his rifle ready for instant use. He may use the butt to help in pressing the wire down. (See fig. 20.)

(2) *Under wire.* To cross under wire, without arms, the scout moves on his back. He feels ahead and above for the strands of wire and "inches" himself along, holding the wire clear of his body. He is careful not to tug on the wire or to jerk it, thus causing a noise and possibly setting off booby traps or antipersonnel mines. If armed, the scout may carry his rifle in one or two ways. (See fig. 21.)

(*a*) He may carry it on his stomach with the bayonet beside his head. In this manner he has both hands free to feel for and to hold the wire and is ready to make a quick bayonet thrust, should someone approach him as he emerges.

(*b*) He may carry the rifle by holding it between his body and right arm with the bayonet resting on his shoulder.

Figure 21. Passing under wire.

c. Cutting wire. To cut his way through wire, the scout, when alone, cuts the wire near a picket to avoid having two loose ends fly back. To muffle the sound of cutting, he wraps gun patches, rolled leaves, or other material, around the wire. He grasps the wire near the picket with one hand and places the cutters over the patches between his hand and the picket. He slowly increases the pressure until the wire is cut. When the scout is operating with another, one holds the wire in both hands while the other cuts the wire between the holder's hands, muffling the sound of cutting as described above. The cut strands are carefully bent or rolled back, the short pieces to the nearest pickets and the

long pieces far enough back to make an opening sufficient for a passage. The gap is cut diagonally to the front and the top strand is left intact so as to avoid leaving a well-defined, easily discovered passageway. (See fig. 22.)

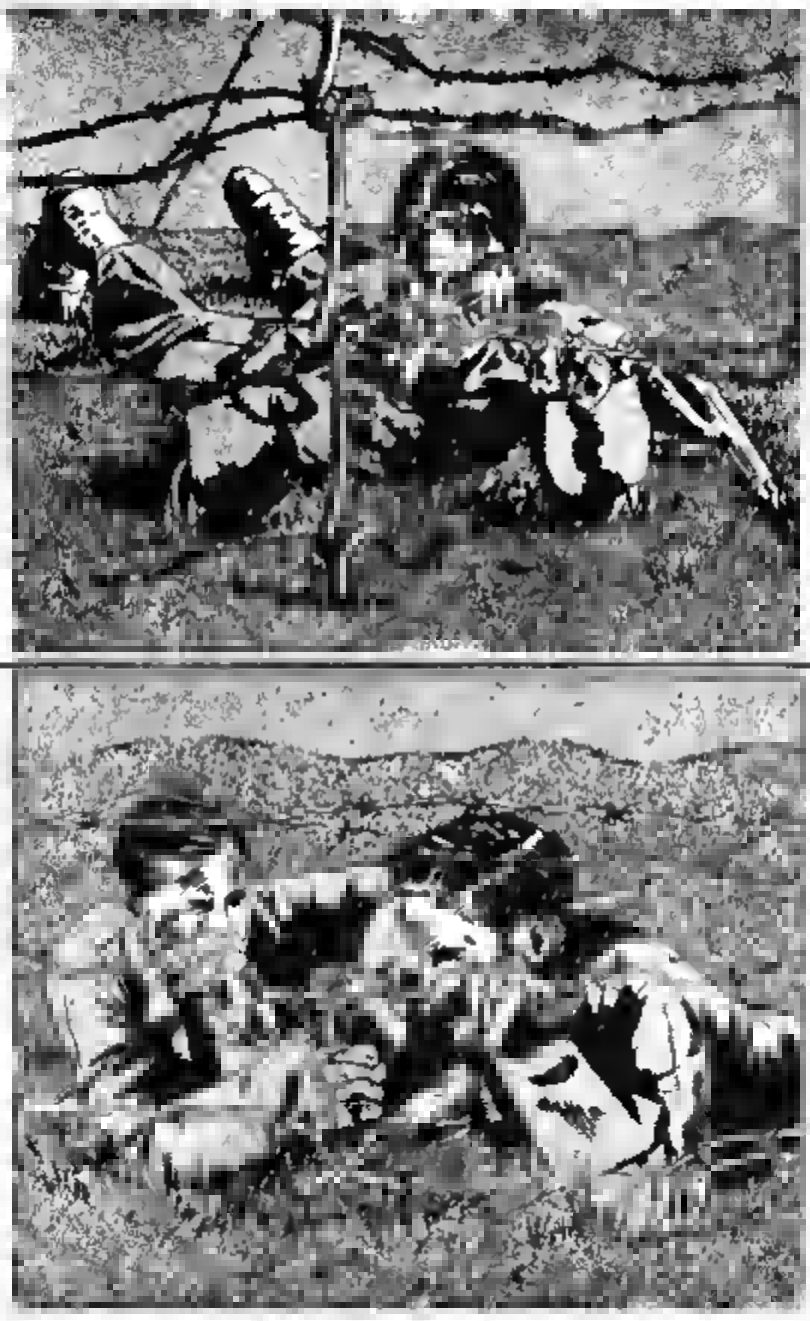
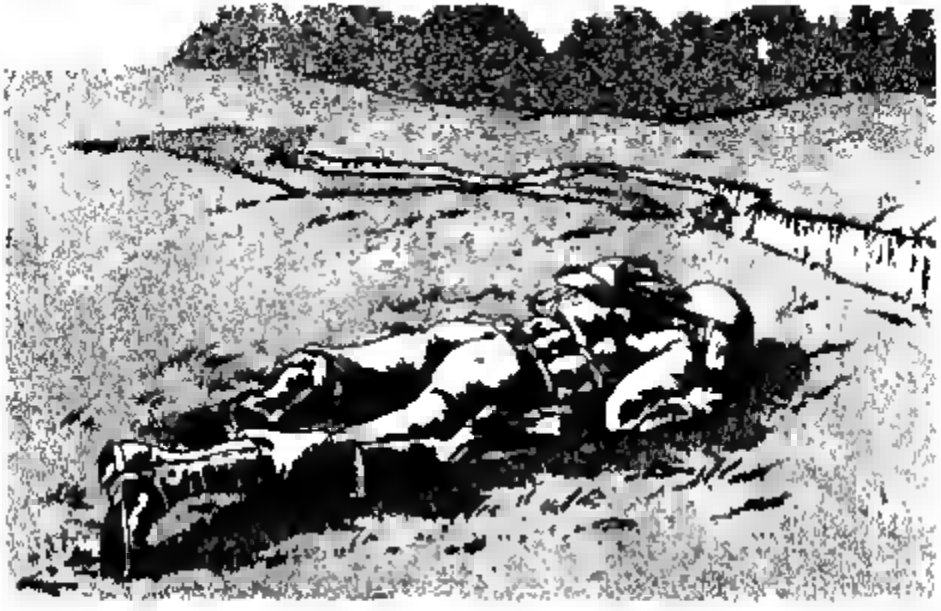
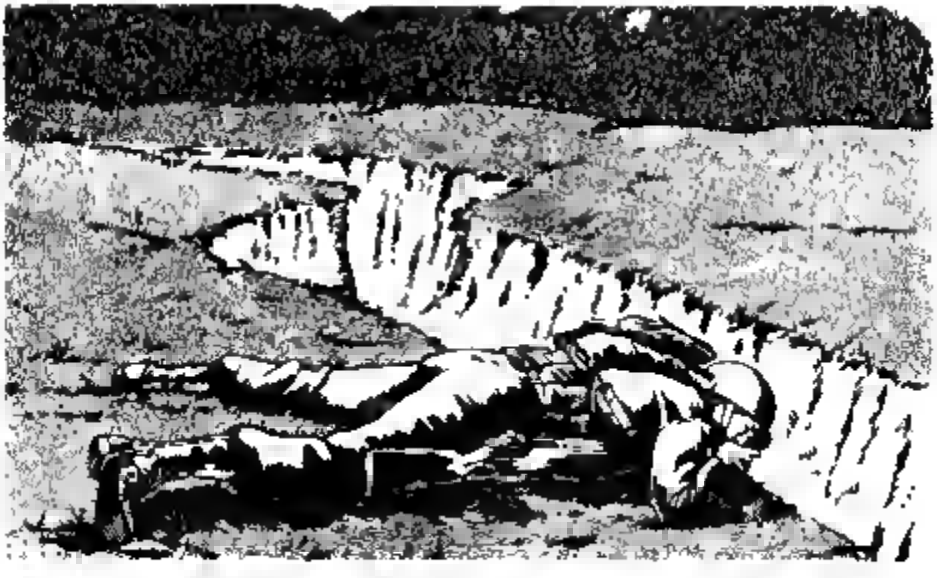


Figure 22. Cutting wire.

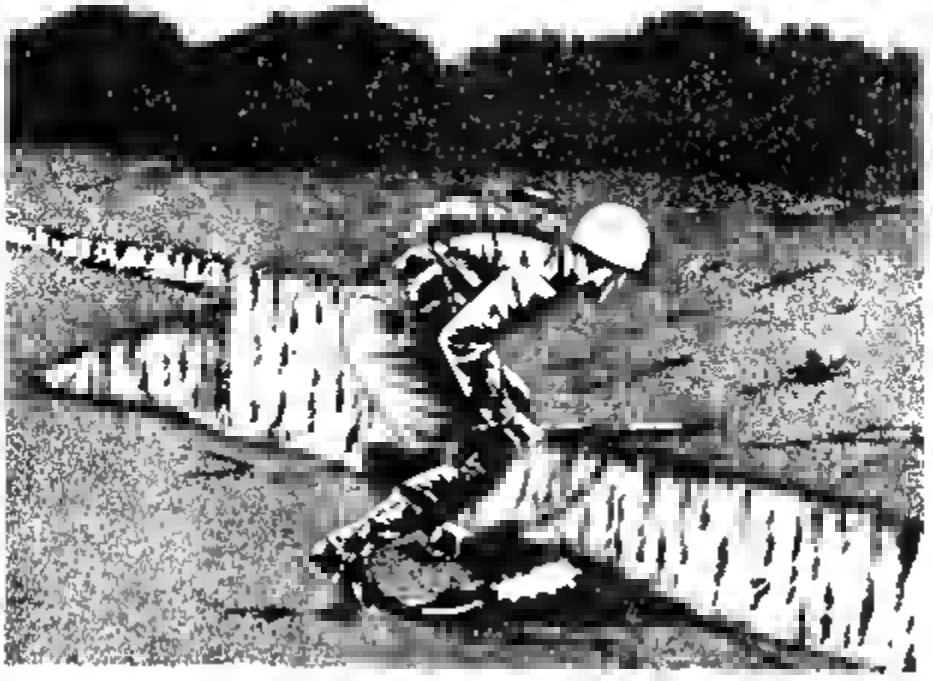
d. Crossing trenches. See figures 23 and 24 for the way to cross a narrow trench. If it is a wide trench, the soldier climbs silently and slowly down into the trench and out the other side, using revetments to assist him.



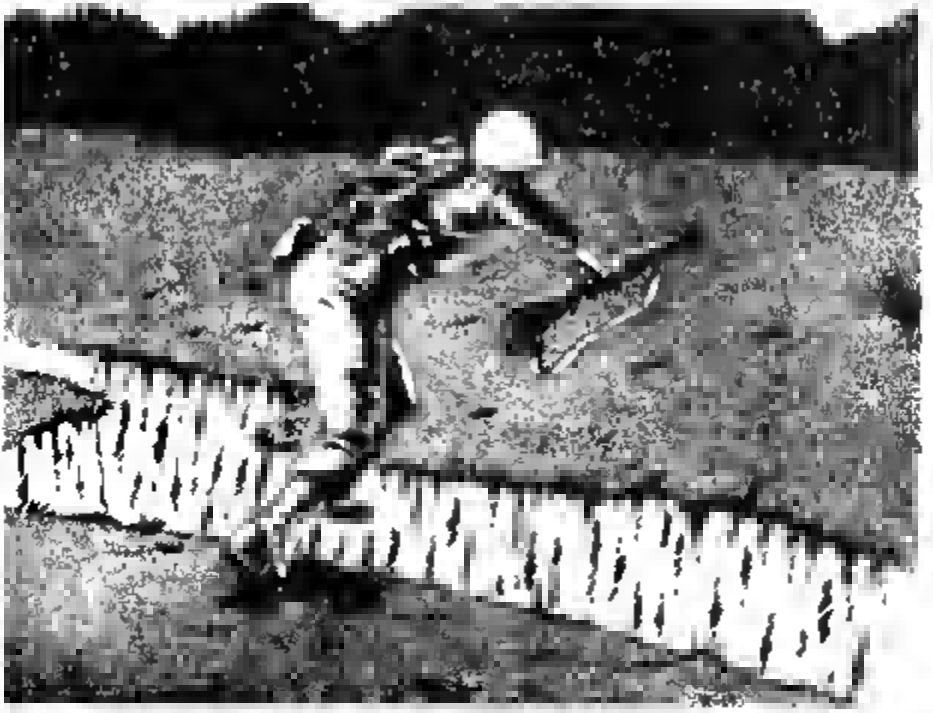
① *The scout selects a point at a distance from any junction with a connecting trench. Before crossing, he waits for a short time and listens.*



② *He crawls up to the edge of the trench and cautiously looks into it. He removes all loose dirt and rocks from the edge and looks at the other side to be sure it is firm and clear of debris.*

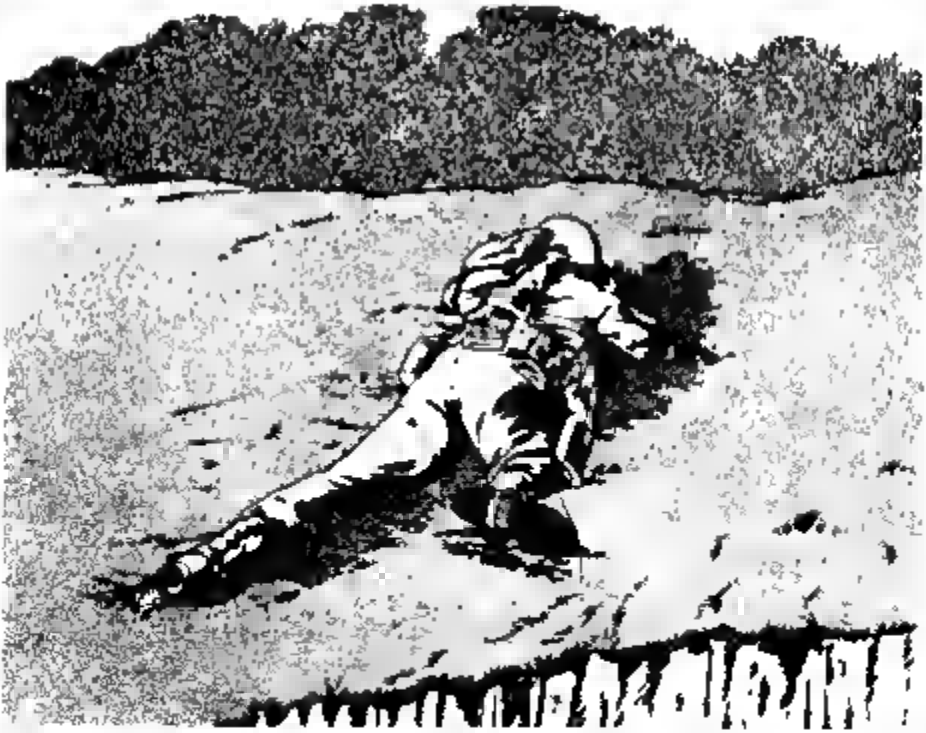


③ *He springs up and jumps acrass.*



④ *He lands on one foot*

⑤ *He sinks quietly to the ground.*



① *He remains there for a moment, listening before proceeding.*

Figure 23. Crossing narrow trenches silently at night.

Figure 24. Crossing a narrow trench.

Chapter 4

MAPS AND USE OF COMPASS

Section I. MAPS

26. MAP READING IN THE FIELD. a. General. The scout must have a practical knowledge of map reading and aerial photographs (see FM 21–25). He must be able to recognize and use the military terms for features of the terrain. He must know how to orient a map by compass by two points, by watch and sun, or by the North Star (see par. 10); understand conventional signs, be able to determine elevation from contours, scale distance on a map, solve simple visibility problems, and find his position upon the map or know his position in relation to other objects on the ground.

b. Orientation. A map is oriented when its north line points north. Every line will then be parallel to the corresponding line on the ground and all points will be in the same relative positions as the actual points on the ground.

c. Methods of map orientation. (1) *Inspection.* Figure 25 shows how a map may be oriented by carefully observing the road system and terrain features in the immediate vicinity. Note that the map has been rotated horizontally until the road on the map parallels the road on the ground and the positions of nearby ground features are in similar relation to their corresponding conventional signs as shown on the map. This is the most practical method for ordinary purposes and may be used as a rough check on more accurate methods.

(2) *By compass.* Magnetic north is shown on most maps by a line with a barb on it and is also indicated by the north end of the compass needle. Figure 26 illustrates use

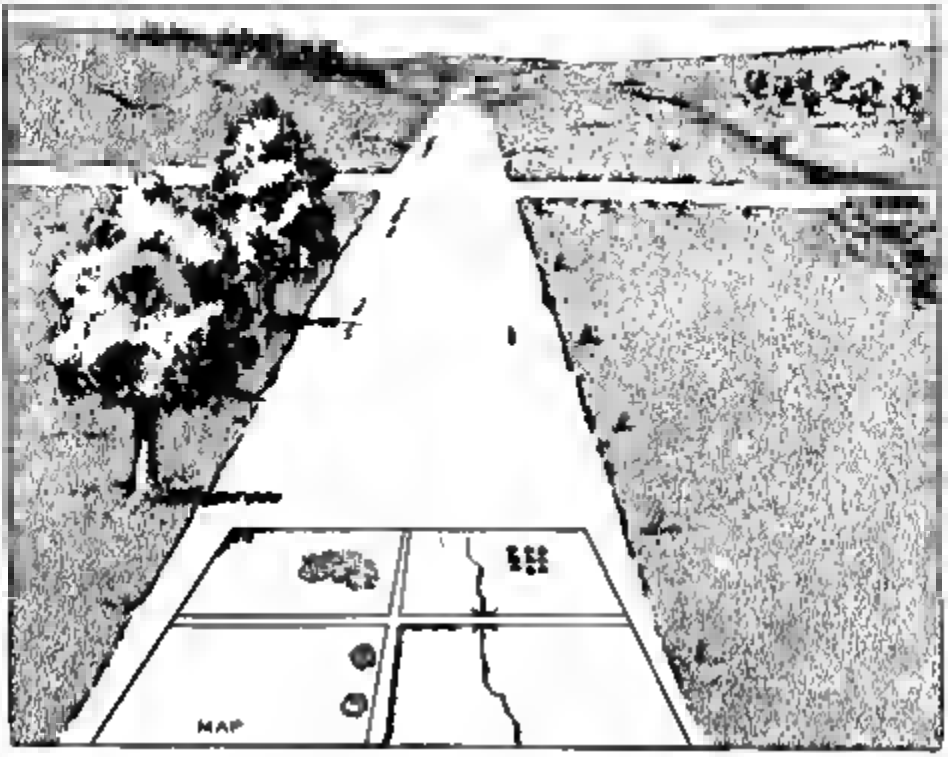


Figure 25. Orienting map by inspection.

of this method. Either prolong the magnetic north line or draw a line parallel to it. Then place the compass on the map with the hair line in the compass cover exactly over this north line. Rotate the map horizontally until the north end of the needle points to the stationary index. The map is now oriented.

(3) *By means of distant point when observer's position is known.* A method of orienting a map when a compass is not available and there are no nearby features suitable for orientation by inspection is illustrated in figure 27. Place a pin at the observer's position on the map. This may be found by reference to the fence corner (fig. 27). Place another pin on the map location of some well-defined point such as the church. Hold the map horizontal and rotate it until the line of pins is aligned on the church. The map is now oriented. A more precise orientation is secured if more than one point can be used. Once the map is oriented, the ap-

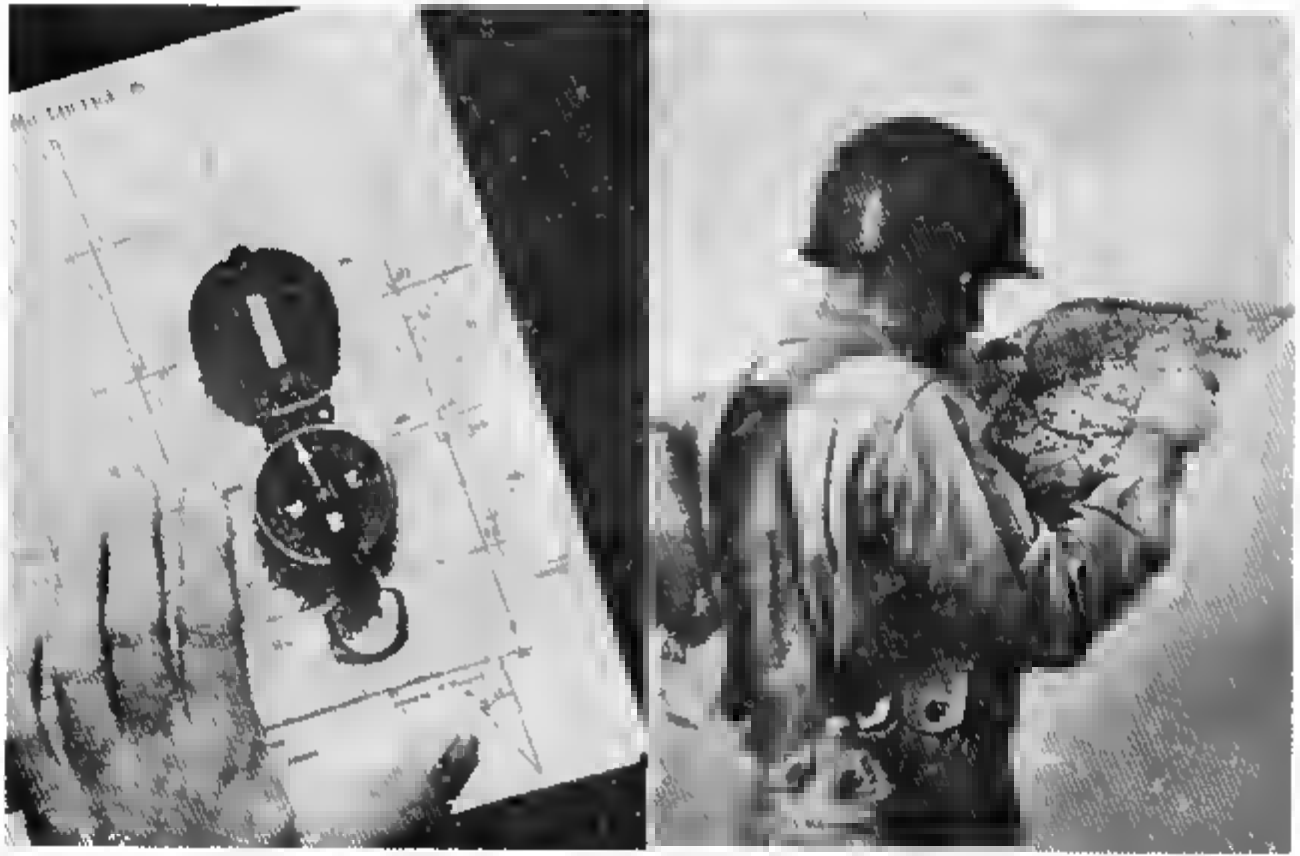


Figure 26. Orientation of map by compass.

proximate map location of a target or other point may be determined as follows: keeping the map in its oriented position, sight over pin at observer's position toward the designated point, and place a pin on the line of sight. From a study of the map, or by estimation or measurement of the distance, fix location of the point.

d. Finding scout's position on map. (1) *Inspection.* If his approximate location on a map is known, all the scout has to do is to study the visible terrain for distinctive features. His position can be found by identifying these features on the map. This procedure is greatly simplified if the map is oriented to the ground. Figure 28 is an example of this method.

(2) *By striding or estimation of distance when along road, railroad, etc.* The scout identifies on the ground the

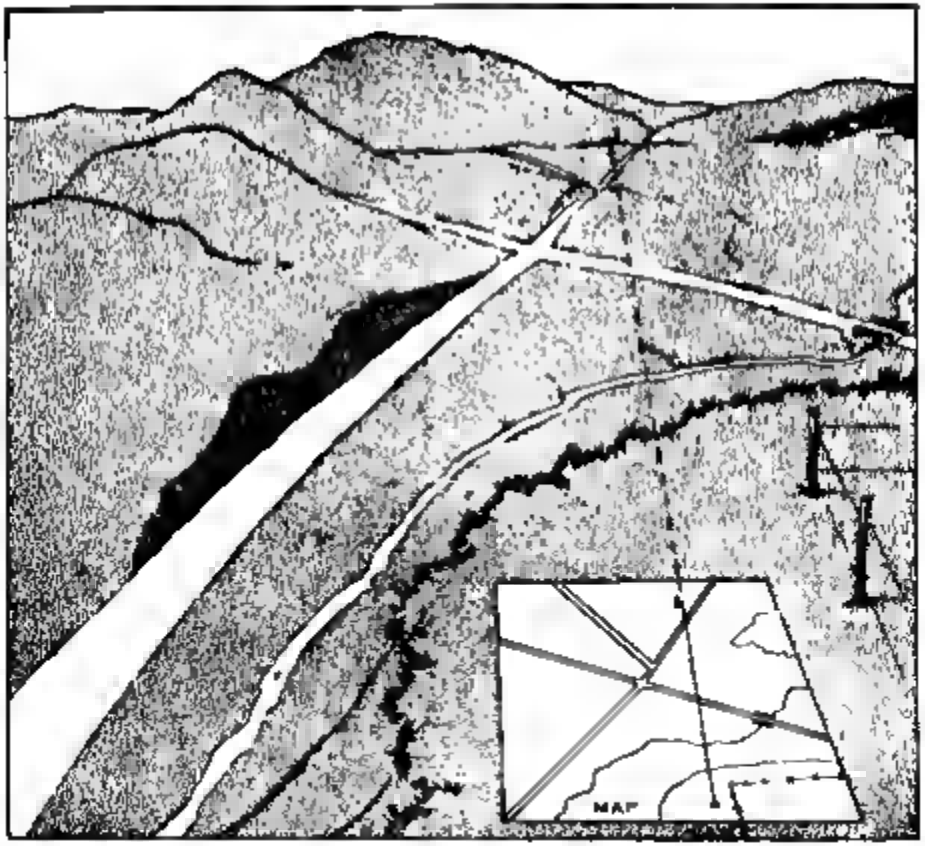


Figure 27. Orienting map by means of a distant point.

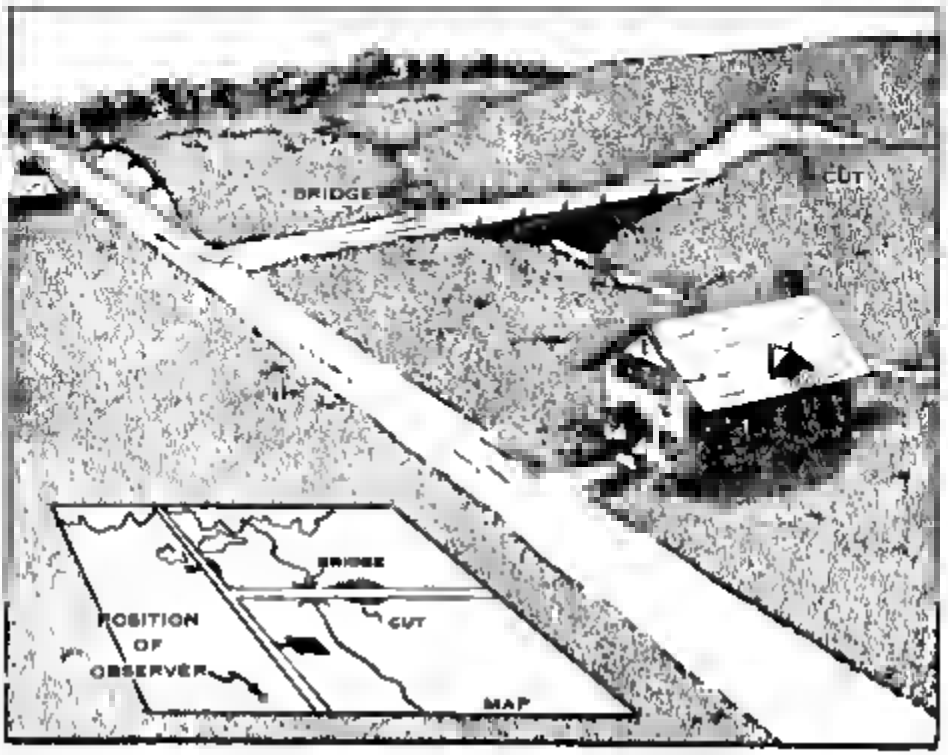


Figure 28. Locating position on map by inspection.

nearest road bend, road junction, bridge, etc., which appears on the map. He then estimates the distance to this point or measures the distance by striding. His position on the map is then obtained by laying off the distance to the scale of the map.

(3) *By resection from two known points.* This method is illustrated in figure 29. The scout first orients the map accurately. He then looks over the terrain and selects two distinct visible features on the ground, *B* and *C*, that are so located that lines radiating from the scout to them form an angle of as near 90° as possible. He places a pin in *B*, lays a straightedge (ruler or pencil) against the pin, turns the straightedge until it points at *B*, and draws a line on the map from the pin toward his position. He repeats the operation with point *C*. The intersection of the two lines is the scout's location on the map. Care must be exercised to see

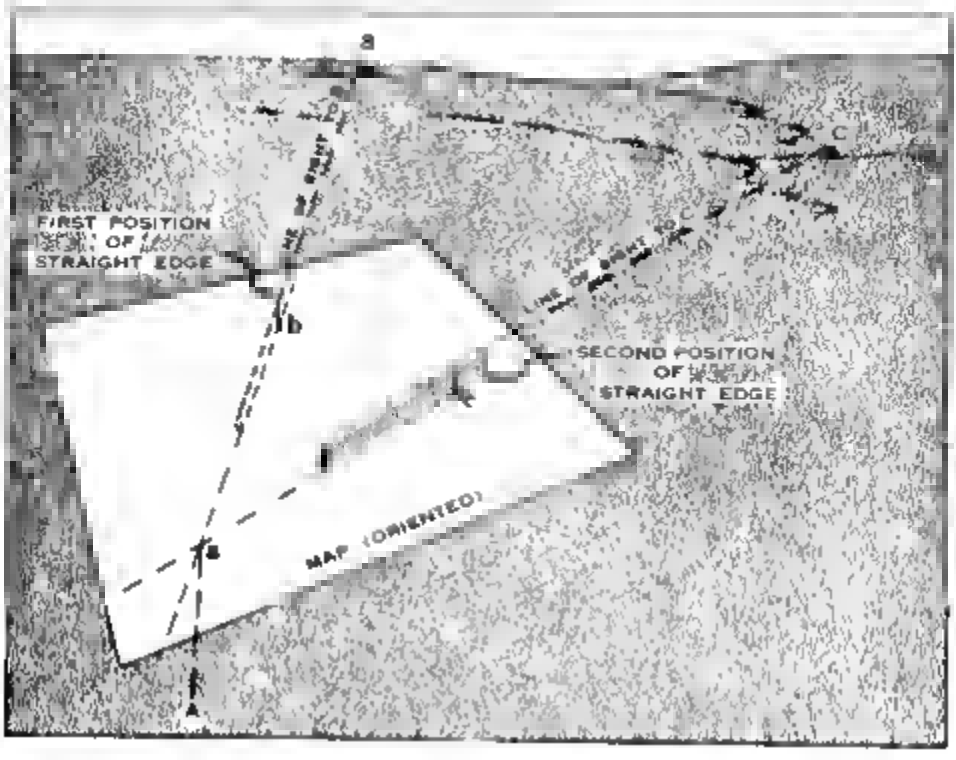


Figure 29. Location of observer's position on map by resection from two distant points (graphic method).

that the map remains oriented during the entire procedure. If three points are used instead of two, the scout's location on the map will probably be more accurate.

e. Ground forms. Ground forms are shown by means of contours. A contour is an imaginary line joining points of equal elevation. (See FM 21–25.)

f. Scales. To find the actual distance between two points on the map, the distance is measured with a paper or string and the distance so obtained is compared with the scale of the map.

27. TERRAIN FEATURES. In addition to the usual standard terrain terms such as hill, ridge, valley, etc., certain other words are used to describe features of military importance. (See fig. 30.)

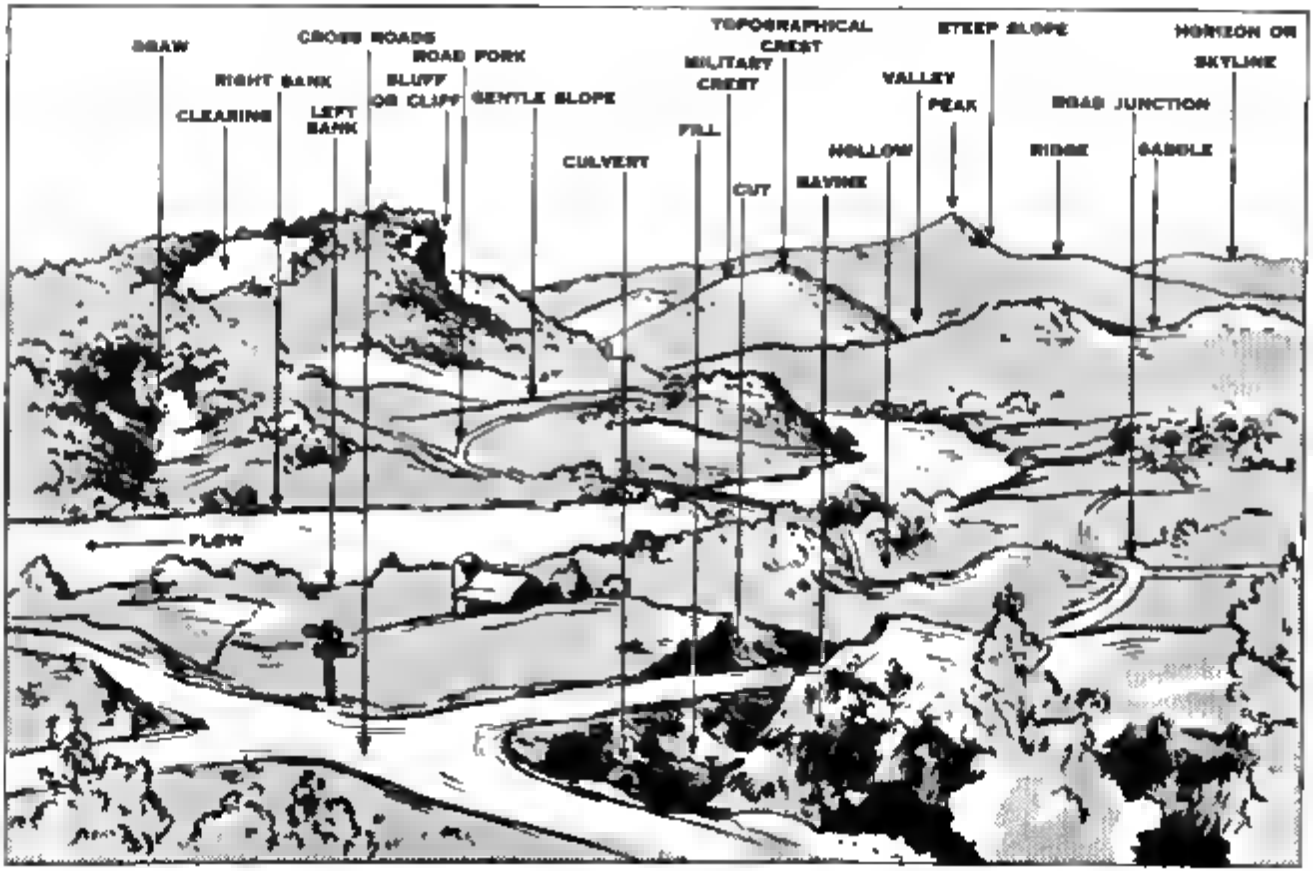


Figure 30. Terrain features.

28. TERRAIN. **a.** A scout should be able to evaluate terrain and report by a memory sketch "the lay of the land" that he has observed.

b. Terrain can always be evaluated in terms of the following five factors: observation, fields of fire, concealment and cover, obstacles, and routes of communication.

(1) Observation is a protection against surprise and permits an evaluation of the terrain. Good observation also allows the delivery of effective fire upon the enemy. High ground allows the best observation.

(2) Fields of fire are necessary for the most effective employment of firearms. A good field of fire is essential to defense. In attack, routes of approach are sought which prevent the enemy from having good fields of fire. The best fields of fire are over level or uniformly sloping open terrain.

(3) Concealment and cover are important. Concealment may exist without cover or they may occur together. (See pars. 5 and 6.) The ideal position for defense provides concealment and cover for the defenders with neither cover nor concealment in front to aid an attacking enemy. Attack is favored by terrain that offers good concealment or cover to approach the enemy. Wooded or rough terrain provide the maximum in cover and concealment.

(4) Obstacles are of increasing importance in modern warfare because of mechanized units. Obstacles are chiefly of advantage to the defense but may be used to protect the flanks of attacking units. Natural obstacles of the terrain include mountains, rivers, bodies of water, marshes, gullies, steep inclines, and extensive woods.

(5) Routes of communication allow the movement of troops and supplies to the front. They are important to both defense and offense. Routes of communication include roads, covered approaches, waterways, trails, airfields, and their facilities.

29. SKETCHES. A scout may show accurately by means of a sketch information which would be difficult to convey otherwise. Sketches are of two types—panoramic and topographic.

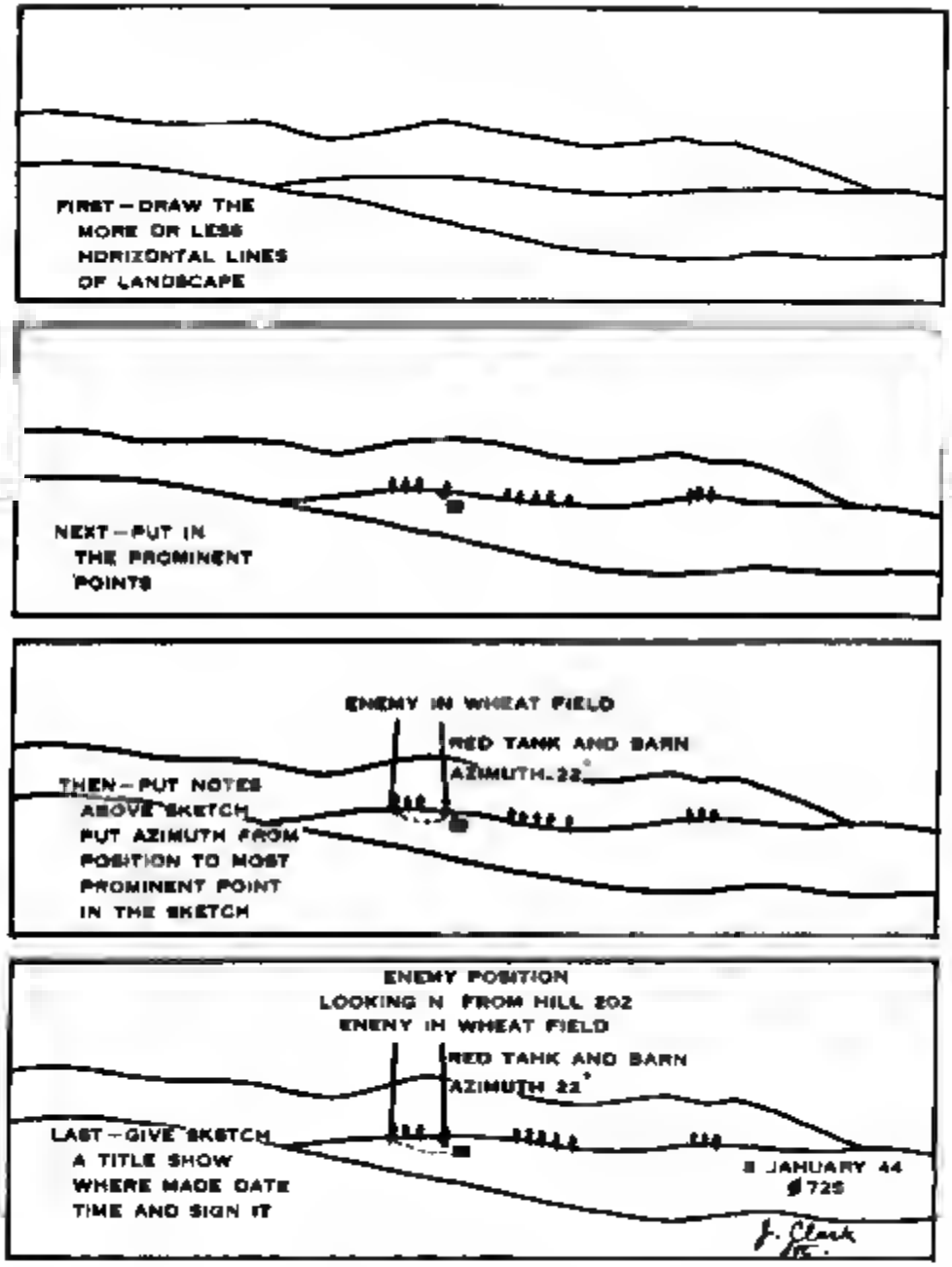


Figure 31. Method of making a panoramic sketch.

a. Panoramic sketches. A panoramic sketch is a picture of the terrain in elevation and perspective as seen from one point of observation. It conveys information of the terrain to the person to whom the sketch is sent. A panoramic sketch made by one scout will assist another scout in orienting himself, in getting the same view from the same position, and will enable him to pick up quickly the information conveyed by the sketch. The method of making a panoramic sketch (see fig. 31) is described below:

(1) Determine what information it is desired to transmit.

(2) Draw the more or less horizontal lines of the landscape. The scale normally used is: ¾ inch equals 50 mils.

(3) Put in the prominent points. Leave out unimportant details.

(4) Do not show the foreground.

(5) Indicate on the sketch the location of the information it is desired to transmit.

(6) Place any explanatory notes above the sketch with arrows pointing to the features explained.

(7) Indicate the azimuth to the most prominent point in the sketch, the reference point.

(8) Place a title on the sketch, show where it was made, and indicate the date and time when it was made.

(9) Sign the sketch.

b. Topographic sketches. A topographic sketch enables the person receiving the sketch to plot on a map the scout's position or the information that the scout desires to convey. The method of making a topographic sketch (see fig. 32) is described below:

(1) Find the azimuth from the position to that of the object seen or of the information to be transmitted.

(2) Estimate the distance.

(3) Draw the azimuth line from observer to object; mark above it the azimuth and below it the distance.

(4) At the proper end indicate the object, and at the other end the position of the scout.

(5) Find the azimuth and the distance to some point on the map or to the position of the command post. Draw this

line on the sketch and indicate the azimuth, the distance, and the object to which drawn.

(6) Sign the sketch.

30. OVERLAYS. An overlay is a piece of cloth or transparent paper, for laying over a map or chart, upon which various locations, such as targets, enemy positions, etc., are shown. A map, similar to that used by the scout in preparing the overlay, must be in the possession of the receiver. The receiver places the overlay over his copy of the map and the information the scout is transmitting may be understood. Overlays may be made on any kiod of transparent paper,

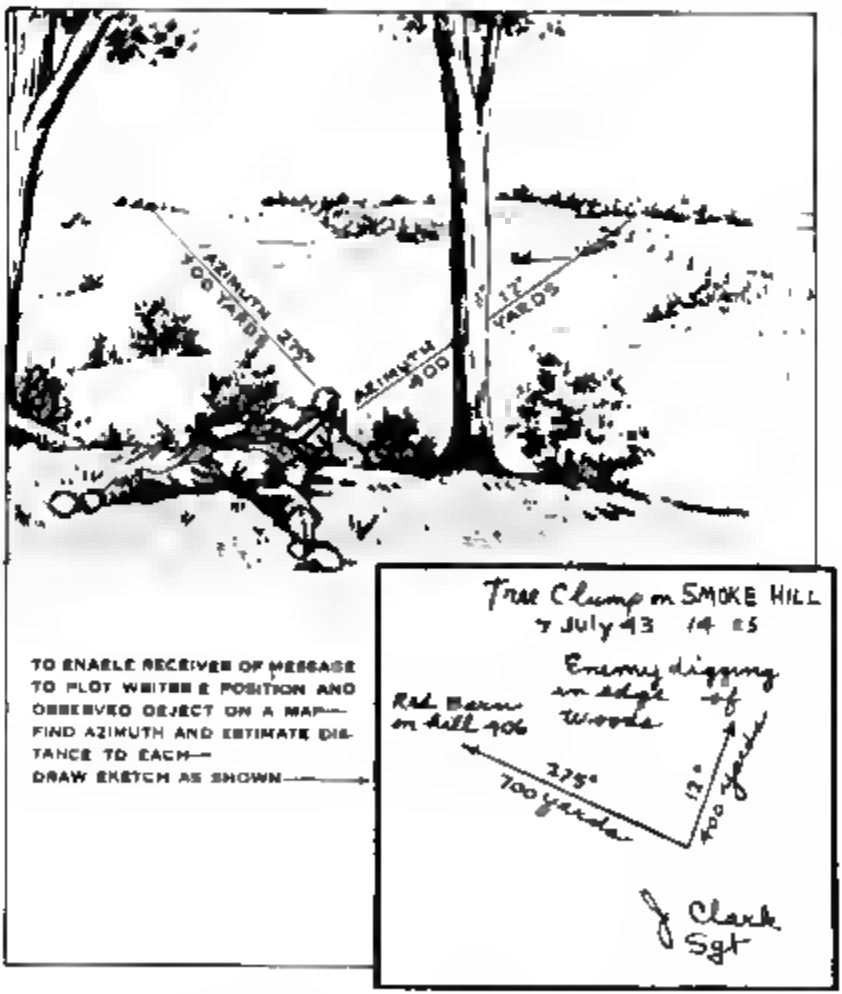


Figure 32. Method of making a topographic sketch.

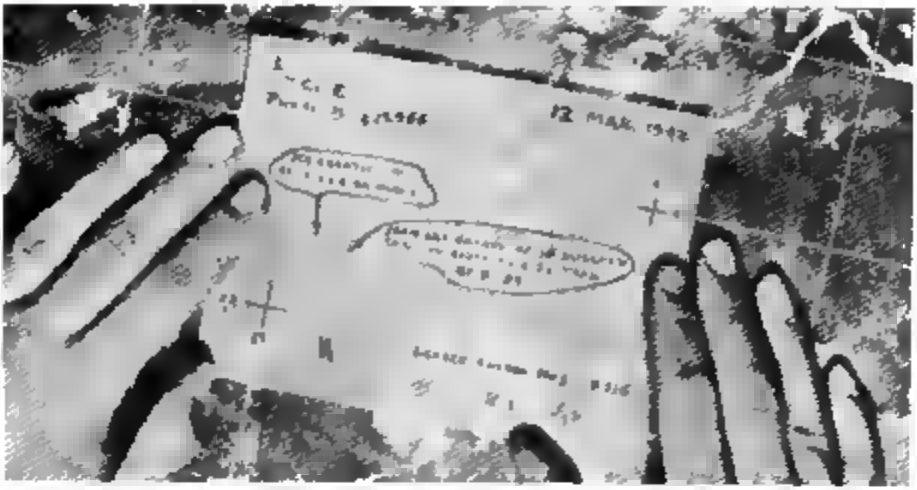


Figure 33. An overlay--brief and accurate.

tracing paper, overlay sheets from a message book, or even toilet paper. The method of making a simple overlay (see fig. 33) is described below:

a. Orient the map on a hard, flat surface.

b. Place the transparent paper over the part of the map where the object it is desired to show, or the information to be transmitted, is located and fasten with paper clips, thumbtacks, or pins.

c. Register the overlay by tracing in the intersecting grid lines at two opposite corners of the overlay and give them their correct number designation. If there are no grid lines on the map, trace in at least two clearly defined map features, such as road junctions, towns, or streams. This enables the receiver to locate the exact area on the map covered by the overlay.

d. Sketch in the objects seen or the information to be transmitted, putting these data where they will be seen through the tracing paper if shown on the map itself.

e. Put all explanatory notes along the margin of the overlay with arrows pointing to the objects mentioned.

f. Indicate the position on the map from which you saw the object or obtained the information.

g. Indicate the title and scale of the map from which the overlay was made.

h. State the date and hour the information was obtained.

i. Sign the overlay.

Section II. COMPASS

31. GENERAL. a. The scout must understand and be able to use the compass. His duties require him to move to distant points through woods and at night and to designate objects discovered. Frequently he must lead others to points

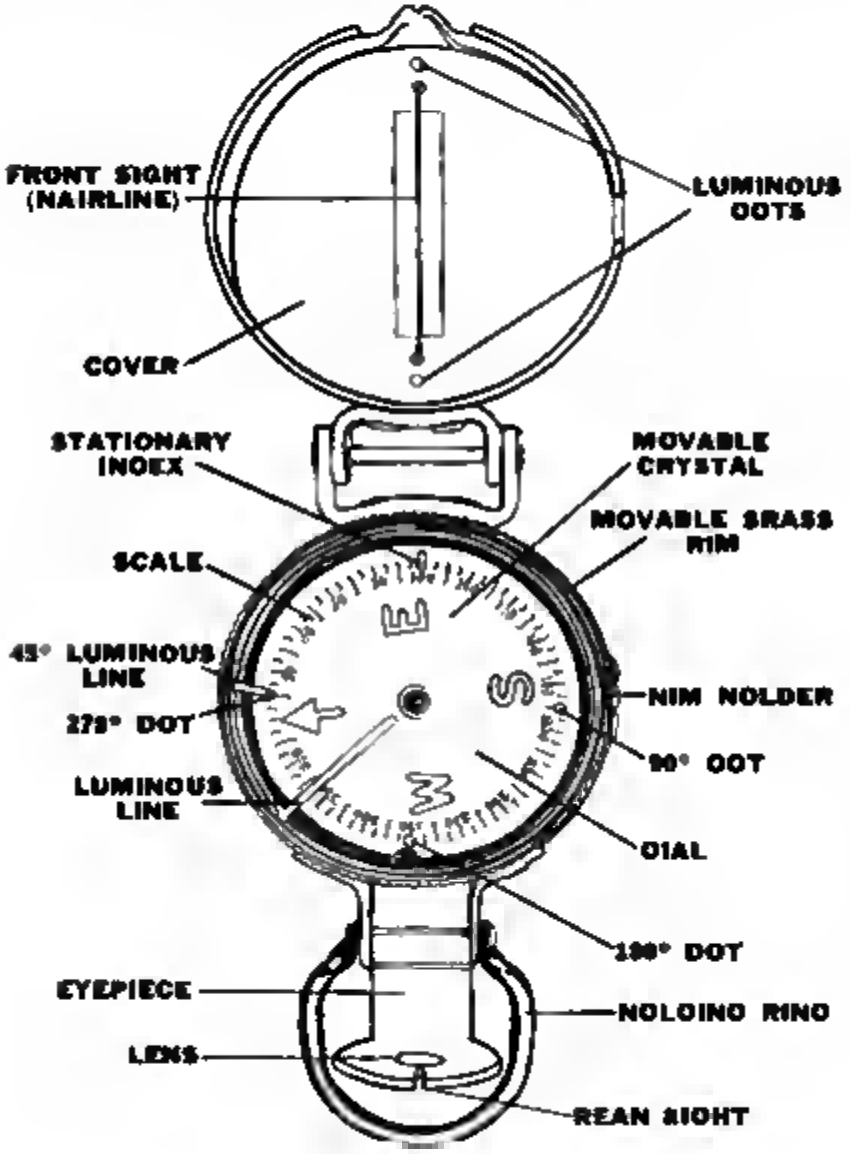


Figure 34. Nomenclature of compass.

Figure 35. A method of holding the compass.

he has scouted. The compass is his surest guide. The scout must understand three uses of the compass, namely: how to determine the direction of an object on the ground; how to determine the direction of an object on a map; and how to march in a given direction either by day or night.

b. Method of using (1) The standard-type lensatic compass may be held with the thumb through the holding ring, supporting the compass with the first two fingers. (See fig. 35.)

(2) Adjust the eyepiece until the figures of the dial can be read plainly through the lens.

(3) The arrow at rest points to the magnetic north. The

angle any line makes with the north line, measured clockwise from the north point, is the magnetic azimuth of that line.

(4) Hold the compass as directed in (1) and (2) above. Stand so that the arrow is under the stationary index. The line of sight is now magnetic north.

(5) Turn the body either to the right or left. The number now under the stationary index is the magnetic azimuth of the new line of sight.

Figure 36. Method of determining azimuth of a visible object.

32. DETERMINING AZIMUTH. a. To object on ground. To determine the azimuth of any object, align the rear sight (slit in the eyepiece) and the front sight (hair line in the compass cover) upon the object. Let the dial come to rest. Read the azimuth under the stationary index. (See fig. 36.)

b. To object on map. To determine the azimuth of an object on a map, draw a fine line on the map connecting your position and the object. Orient the map. Place the compass on the map, compass cover toward the object, with the hair line in the lid directly over the line drawn on the map. The reading at the stationary index now indicates the desired azimuth. (See fig. 37.)

c. To march in given direction. Look through the lens and turn the body until the required azimuth is read. Pick out a reference point in the line of sight. March to the reference point. Repeat with successive reference points as often as necessary.

d. Offsets. Frequently, while following a compass course, the scout will have to go around obstacles. In such cases he takes a 90° compass offset. (See fig. 38.)

e. Back azimuth. When a specific azimuth has been indicated, back azimuth is the opposite direction. Numerically it equals the original azimuth plus or minus 180°.

33. USES OF COMPASS AT NIGHT. a. Necessity. For night work, the scout must understand the use of the luminous compass. By it he may guide his platoon into position in the dark; he may visit adjoining elements of his own command, keep direction when on patrol, or locate gaps in the enemy wire, and enemy positions.

b. Marching by compass. In night marching, the scout first uses a map or some other source to determine the azimuth on which he is to march. He then raises the cover and eyepiece of his compass. He turns the compass until his predetermined azimuth is next to the stationary index. Next, he turns the glass face until the luminous line is di-

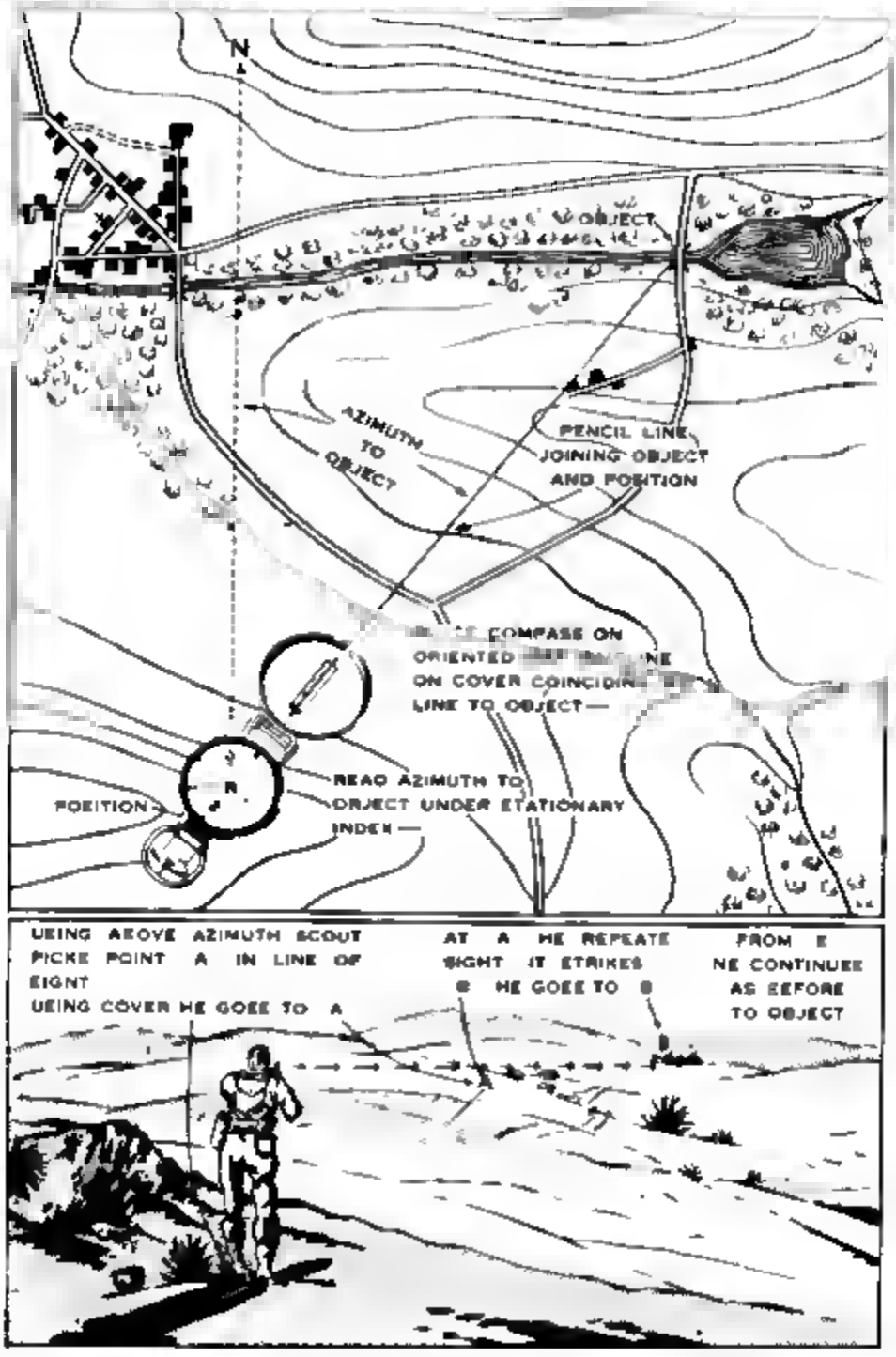


Figure 37. Method of obtaining azimuth, and marching by means of a compass.

rectly over the luminous arrow. The compass is then adjusted for marching on the predetermined azimuth, and can still be used for taking other azimuths, so long as the glass face is not disturbed. To march on the predetermined azimuth, the scout opens the cover of his adjusted compass, being careful to hold it level so that the dial will not bind. He raises the eyepiece and turns the compass until the luminous arrow comes to rest directly under the luminous line on the glass face. He then sights along the line of luminous dots and selects some point on the skyline which is in line with the luminous dots. He may use the rear sight to help align the luminous dots on the point. The scout marches to that point and repeats the process from there, selecting another point along the predetermined azimuth. (See fig. 39.)

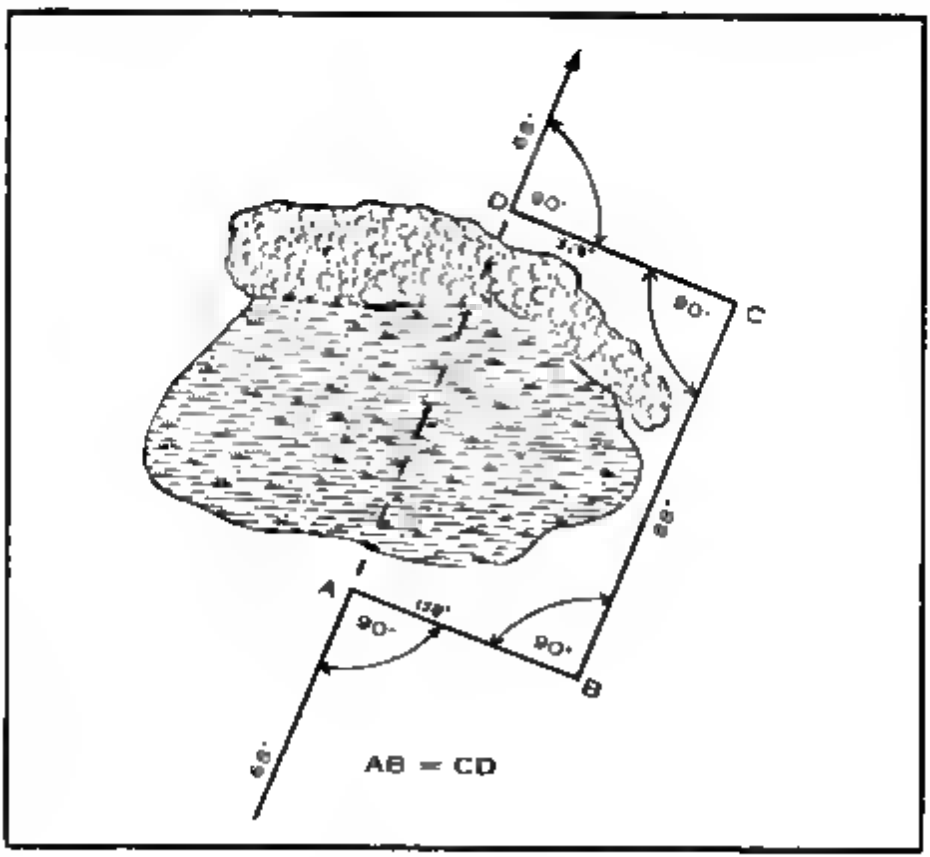


Figure 38. 90° method of offset.

c. Location of points at night. (1) *By azimuth.* Select a prominent object and estimate the distance to it. Align the two luminous dots in the cover upon the object. Allow the dial to come to rest. Rotate the movable crystal until the luminous line is over the north arrow. The azimuth of the line from the point to the object can then be obtained where light is available by simply rotating the compass (being careful not to move the movable ring) until the luminous line is again over the north arrow and then read.

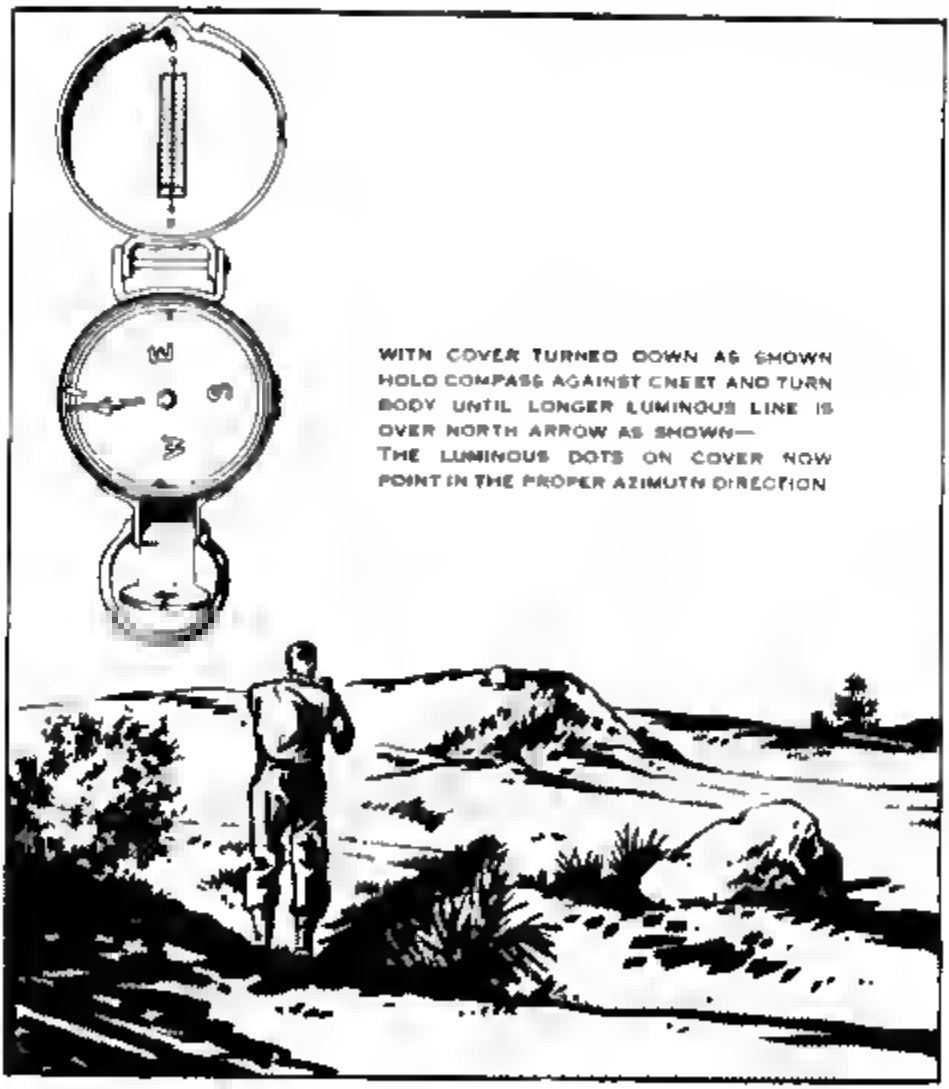


Figure 39. Method of keeping direction at night with compass.

ing the figure beneath the stationary index. With this data—the azimuth and distance from a known object—the point can be plotted on a map.

(2) *By counting clicks.* Proceed as in (1) above until the luminous line is over the north arrow. Then rotate the movable crystal, counting the clicks until the luminous line points to the fixed index. Record the number of clicks (each click represents 3°). Estimate nnd record the distance to the point. Any number of points mny be similarly recorded. The luminous line must be set over the north arrow again when all the points have been so recorded.

34. PRECAUTIONS IN USING COMPASS. The compasa is affected by iron and electrical fields. The rifle, pistol, and helmet must be laid aside when reading the compass. The following are the minimum safe distances for visible masses of iron and electrical fields.

	Yards
High tenaion tines	150
Heavy gun . .	60
Field gun or telegraph wires	40
Barbed wire	10

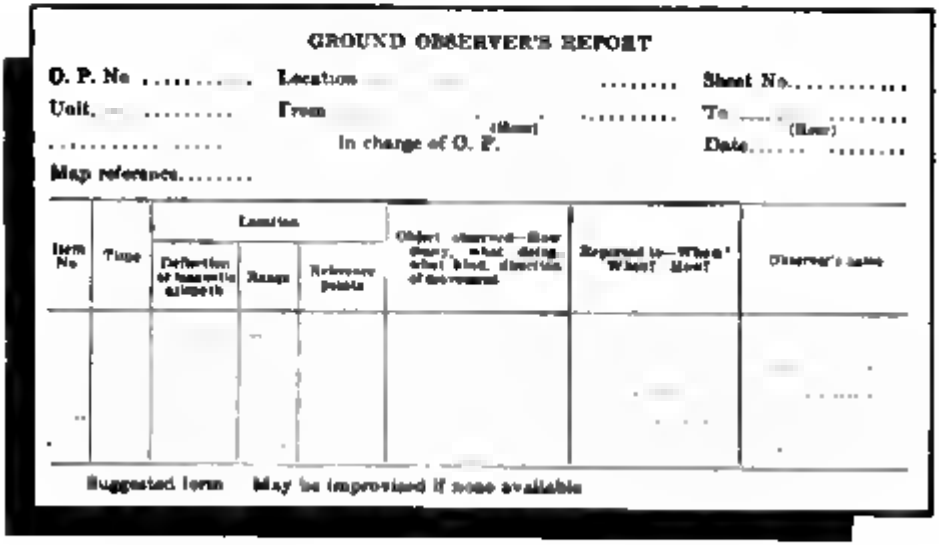
Chapter 5

OBSERVING AND REPORTING

Section I. OBSERVATION

35. OBSERVING. a. Principles. When the enemy is encountered and his position is in sight, observation posts should be immediately established. Although such posts do not take the place of patrols in the early stages of an engagement, they greatly assist in determining hostile dispositions, the number and location of the supporting weapons, and the extent of enemy activity. As the two forces remain in contact, daylight patrolling becomes difficult, and observation must be carried on from commanding points behind the line of outguards. These observation posts should be so placed as to cover the entire front and all ground within the position itself, and, if possible, they should be entered only at night.

b. Operation. An observation post is manned by two scouts, an observer and a recorder, who change duties every 15 or 20 minutes, and who are relieved at the end of two hours. One man observes through a pair of field glasses. When he sees any sign of enemy activity, he takes a compass reading on it, estimates its distance, and gives this information to the other scout who records it together with the time, and telephones it back if it is important. (See fig. 40.) During the early stages of an engagement several men should be assigned to each post to act as messengers, if other communication fails. Later, if the situation becomes more stabilized, the information gained becomes of less immediate importance and may be turned in at the end of the tour of duty.



GROUND OBSERVER'S REPORT

O. P. No ..... Location ..... Sheet No.....

Unit, ... From ..... To .....

..... In charge of O. P. Date.....

Map reference.....

Item No	Time	Location			Object observed—How many, what doing, what kind, direction of movement	Reported to—When? What? How?	Observer's name
		Deflection or magnetic azimuth	Range	Reference points			

Suggested form May be improvised if none available

Figure 40. Suggested form for an observer's report.

36. OBSERVATION POSITIONS. a. Choice. In order to carry out his mission the scout must generally occupy one or more observation positions. Before starting he must study his mission and plan how to accomplish it. Then from a map he can choose the general area from which to observe. When he arrives near a selected position he should watch closely for 10 or 15 minutes to be sure it is not occupied by the enemy. He then decides upon the exact point from which to observe. Cover and concealment are important considerations in choosing a position.

b. Occupation. Having chosen the exact spot from which to observe, the scout moves to it cautiously along a covered route. If it is on a hill, he crawls to a place where the sky line is broken. If he observes from a building, he must keep back from doors and windows. If he climbs a tree, he must pick one with a background so that he will not be

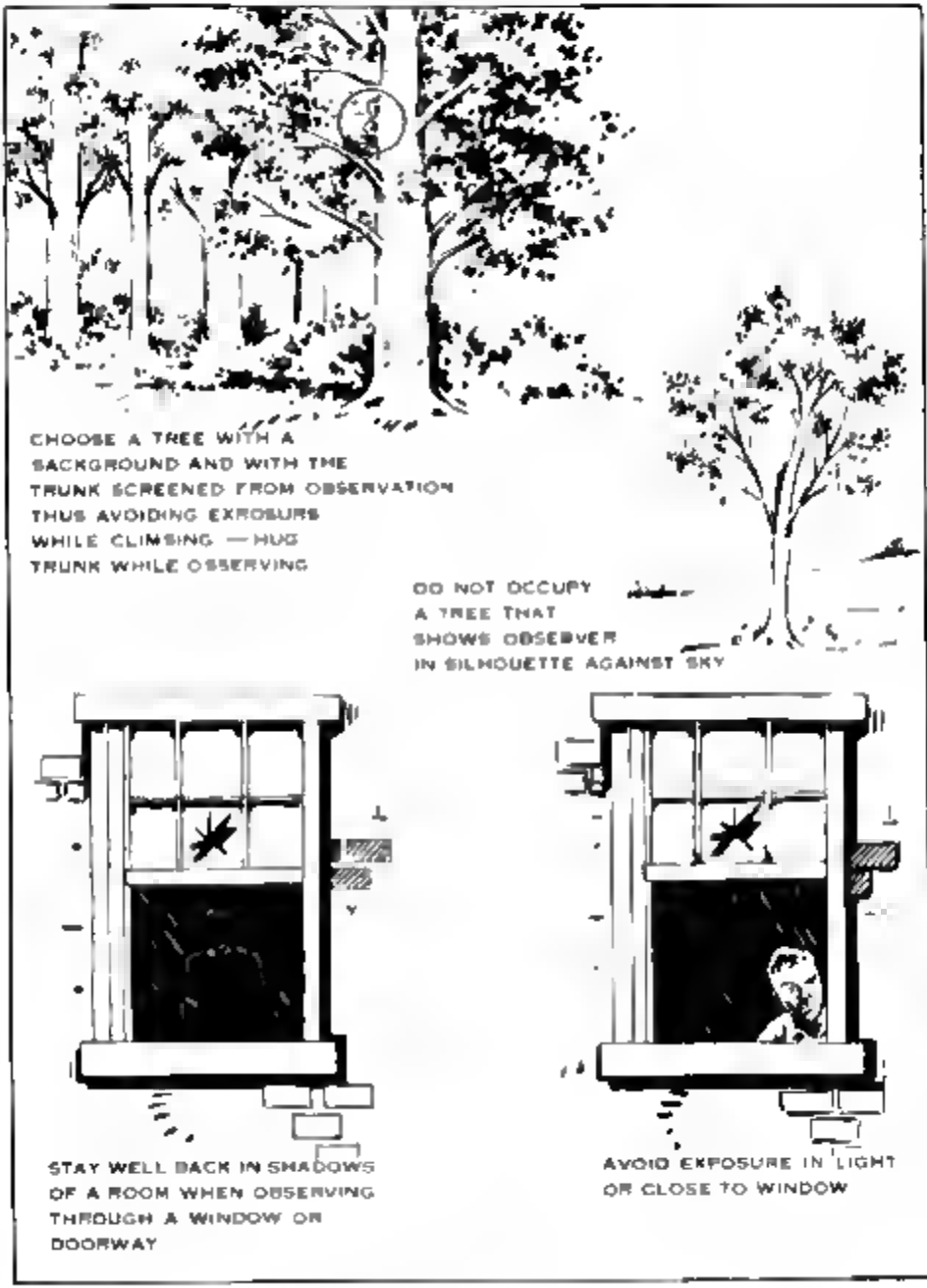


Figure 41. Observing positions, illustrating correct and incorrect occupation.

silhouetted against the sky. He should hug the trunk closely at all times. While observing, the scout must avoid unnecessary movement. He should leave his position by a route different from that of his approach. Care must be taken to avoid making paths that would reveal the position. (See fig. 41.)

37. SEARCHING TERRAIN. a. Principles. The value of the scout depends largely on his ability to see things which the average soldier overlooks. He must be trained to observe systematically in order that he may be able to pick up indistinct and motionless objects as well as moving ones. The belief that the firing of an enemy discloses his position is a common mistake. Long periods of painstaking search are often required before his position is located. In this search a scout trained in patience is invaluable to his platoon leader.

b. Searching in daylight. The scout or observer looks first at the ground nearest him, for his most dangerous enemy will be there. He omits no portion of the dangerous area or place of concealment in his survey. He searches a narrow strip 50 yards or less close to him from right to left, parallel to his front. He then searches from left to right a second strip farther away but overlapping the first. He continues in this manner until the entire field of view is covered. If he thinks he sees something unusual, he looks a little to one side of the suspected spot, because movements are more readily noticed from the corners of the eye. In looking across a body of water when the sun is shining, he shades his eyes from below instead of from above. (See fig. 42.)

c. Searching at night. At night the scout, or observer, should search the horizon with short, jerky movements and short pauses. He should look a little to one side of an object and then to the other side in order to see best on a dark night. He should not use long, sweeping movements with long pauses when searching the ground nor should he look directly at a located object. By getting the eye close to the ground so that an object appears against the sky, the object can be seen more clearly. Low-powered field glasses also increase the range. Even when the eyes are adapted to the

dark, using a light, even for a short time, cuts down the distance the scout can see and may impair his night vision for another half hour. (See par. 13.) For this reason, the observer should look away from flares, flashes of firing, or similar lights, or cover one eye. When a flare goes up, the best time to observe is while the flare is in the air. If the scout has to look at luminous dials, he should take his readings as fast as possible.

d. Visibility of men and objects. Troops are visible at 2,000 yards, at which distance a mounted man looks like a mere speck.

> At 1,200 yards infantry can be distinguished from cavalry.
> At 1,000 yards a line of men looks like a broad belt.
> At 600 yards the files of a squad can be counted.
> At 400 yards the movements of the arms and legs can be plainly seen.

38. INTERPRETATION OF SIGNS. a. Tracking. (1) *Principles.* The greatest difference between a trained scout and an untrained scout lies in their powers of observation. A trained scout returning from a mission will be able to describe what sort of country he has passed through, all noticeable landmarks, and any indications of the enemy in the vicinity. This ability is acquired by constant practice in observing details. Such ability is valuable to the scout because the enemy in his movements leaves slight indications which show his strength, the character of his troops, their condition, and direction of march.

(2) *Indications.* (*a*) The extent of a bivouac area will ordinarily indicate the number of the enemy there. Laundry, ration tins, dumps, etc., furnish clues as to the size of the enemy force.

(*b*) Tracks on a road will show what kind of troops or vehicles are in the body and the direction of march.

(*c*) The state of his bivouac area and the amount of abandoned matériel indicates the enemy's condition.

(*d*) A freshly made track has sharp edges and ordinarily has signs of moisture which disappear in about 15 minutes.

(*e*) Hoof marks in pairs, overlapping or close together,

Figure 42. Searching terrain.

indicate a horse moving at a walk or trot. The tracks are deeper if the horse was trotting. The hoof prints made by a galloping horse will be separated about 3½ feet.

(*f*) A running man digs his toes into the ground. His walking footprint is fairly even.

(3) *Tracks.* (*a*) *Horse.*

1. A horse's hind feet are usually longer and narrower than the fore feet.
2. Tired horses and pack animals show irregularities in pace because they shuffle instead of picking up their feet.
3. Animals drawing heavily loaded carts uphill make tracks very close together with the toes of the front feet deeply indented.
4. Heavily loaded wagons going down hill often make the wheels slide when the brakes are on.
5. Mule tracks are longer and narrower than those of a horse.
6. The condition of droppings from horses helps to indicate the age of the tracks.
7. One hoof mark lighter than the other indicates that the animal making the tracks was lame in that foot.

(*b*) Motors.

1. The direction of travel of a car can be determined by the manner its tracks pass across ruts or track water from puddles.
2. The speed can be estimated by amount of mud splattered or dirt scattered.
3. Slow-moving wheels leave deep, smooth tracks. Faster moving wheels cut deeper.

39. ESTIMATION OF TROOP STRENGTH AND COMPOSITION. A commander, in making dispositions to meet situations which confront him, will act very often on his scout's information. The scout must therefore aim at absolute accuracy in reporting enemy activity. He should observe carefully units of different sizes in camp, on the

march, or deployed. The knowledge gained during maneuvers of the appearance of platoons, companies, and larger units will be invaluable. He can at these times learn to count distant objects and groups and to estimate the size of the force they indicate. If the troops cannot be counted, their strength may be estimated by the length of time the marching column consumes in passing a given point, by the area covered in camp, or by the front on which they are deployed. Infantry on the march raises a low thick cloud of dust, and cavalry a high thin cloud. A broken cloud indicates artillery or wagon trains. Automobiles or motor trucks raise a heavy rapidly moving cloud.

40. ESTIMATING DISTANCES. The scout uses the unit-of-measure method in estimating distances. (See FM 23–5.)

41. FIELD GLASSES. For use and care of field glasses and binoculars see TM 9–575.

Section II. REPORTING

42. MESSAGES. a. General. The primary purpose in sending messages in the field is to transmit information to a commander or to receive information from him. If this information is to be of value, the message must be accurate, clear, and complete; it must be transmitted and delivered in time to be acted upon. The message must answer the questions, what, where, and when. It may be either oral or written.

b. Oral messages. Messages should be oral when writing is impractical, when the information consists of one simple idea, or when the likelihood of enemy interception makes it unsafe to send a written one. Oral messages must be as simple and brief as possible; a series of numbers or names in them should be avoided. The message should be repeated by the messenger as SOP before he leaves.

c. Written messages. (1) *General.* Written messages are usually preferred to oral ones in the field. They should

be written on the issue message book blanks, if these are available; otherwise, any paper may be used. (See fig. 43.)

(2) *Writing the message.* (*a*) The body of the message should be brief, accurate, and clear. Distinguish between facts and opinions. If hearsay information is reported, mention its source; for example, FRIENDLY FARMER STATES 4-MAN CAVALRY PATROL CROSSED BRIDGE AT 365.4-427.3 AT 0930 TRAVELING SOUTH. The writer should include all information of value, first about the enemy and then about himself. Information about the enemy should cover—

1. Strength.
2. Composition as to arms.
3. Actions or directions in which he is moving.
4. Position at the time observed.
5. Time observed.

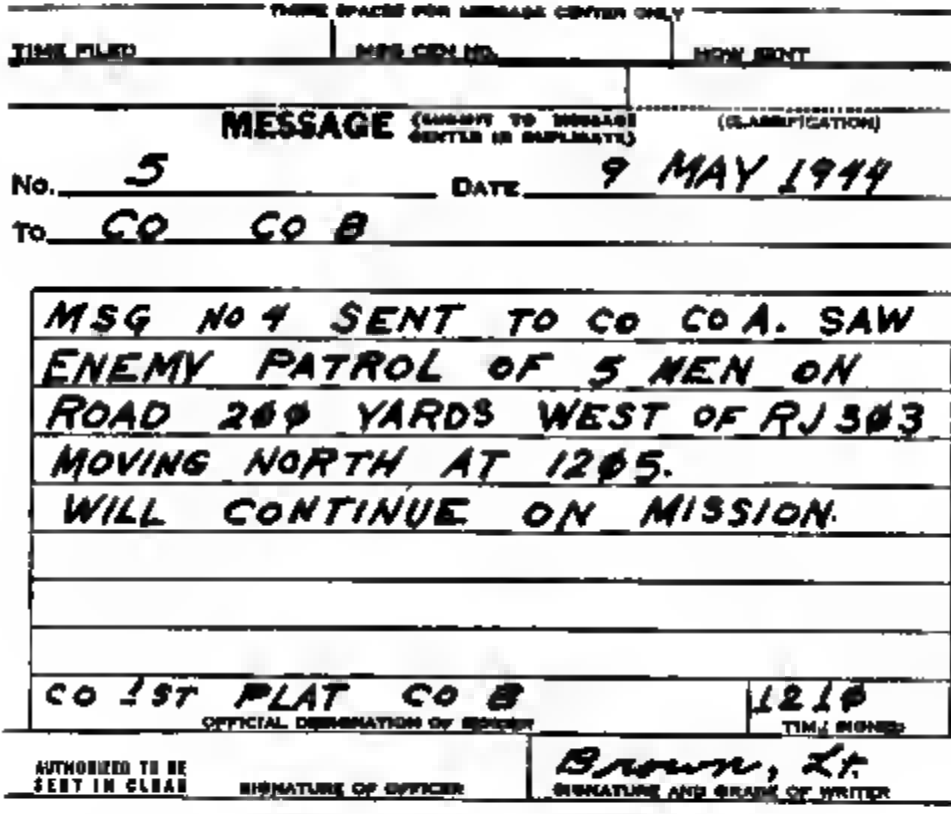


Figure 43. Properly written message.

(*b*) Number and separate into paragraphs individual items of information; this helps clarify the message.

(*c*) If it is doubted whether a particular message has been received by the commander, a summary of its contents should be included in the next message sent.

(*d*) Indicate the place from which the message is being sent, if this is important. Locate the point by reference to an important terrain feature, by map coordinates, by the magnetic azimuth from each of two definitely located points, or the azimuth and distance from one known point. At times, the position may be better described by means of a simple sketch or overlay. (See FM 21–35.) A sketch or overlay may also clarify other information contained in the message. (See fig. 33.)

(e) Reread the message carefully, and if possible, have someone else read it to check that it is complete and easily understood.

(3) Information about writer should cover—

(*a*) His location when enemy was seen.

(*b*) Writer's intentions—will he remain in observation, continue on mission, or take other action. If there is danger of the message falling into enemy hands, this information may be transmitted orally by the messenger.

(4) *Messenger.* (*a*) Information is of value only if received in time to be acted upon. If in doubt about when to send a message, send it at once. In friendly territory and close to friendly troops, one messenger is sufficient. In hostile territory, or when it may be necessary to pass through heavy artillery concentrations, two messengers should be used if they can be spared. They should leave at different times and travel by separate routes.

(*b*) A messenger must know where the message is to be delivered and the route to take. He should locate himself on the ground and map, if one is available, selecting landmarks to help him find his way. He should travel light, taking only the necessary food and arms. If he is delayed or lost, the message should be shown to an officer, if possible, and his advice requested. The messenger should remember his mission. When there is danger of being captured, the message should be destroyed. Subject to camouflage disci-

pline, different routes should be used in entering and leaving a message center or command post. Information obtained along the route should be reported at the time the message is delivered. Messengers have the right of way and must be given all practicable assistance.

Chapter 6

OPERATING PROCEDURE

43. EQUIPMENT. **a.** The scout carries the minimum equipment consistent with the accomplishing of his mission. In the daytime no clothing or equipment should reflect light. At night no equipment should make a noise. The scout usually carries a compass, watch, wire cutters, gas mask, paper and pencil. He rarely carries a flashlight and then with the greatest precautions.

b. (1) Clothing for day scouting should blend with the background.

(2) Clothing for night scouting should be warm and comfortable and should not interfere with movement. Woolen clothing is preferable to cotton because it tears with less noise and permits more silent movement. Trousers are tied at the ankles. Tennis shoes, or jungle shoes, if available, are ideal for night scouting. If neither of these is available, well oiled service shoes with composition sole and rubber heel may be used. Leggings, or clothing that is stiff and causes a scratching noise, should not be worn. A rope may be worn as a belt; if a belt is worn the buckle should be worn on the side to prevent its scraping on the ground. The helmet is undesirable at night because of the characteristic noise it makes in scraping against wire or low hanging branches, and because it distorts sounds.

c. The scout on a night mission is usually armed with silent weapons such as a trench knife, a blackjack, brass knuckles, a garroting wire or a hand-axe. He may sometimes carry a rifle and bayonet, grenades, or sub-machine gun.

44. ACTION IF LOST. The scout is never lost although he may temporarily lose direction. When he loses direction,

he should not get excited or stray about or exhaust himself; he should mark the place at once and then sit down and think the situation over carefully. On cloudy, windless days, if he has no map or compass, the scout should climb the nearest tall tree, and try to locate landmarks already passed, and retrace his steps by this means. If he sees no landmarks such as rivers, lone trees or railway lines, he should look for villages or towns, where he could possibly be directed (if in an enemy's country, this might not be possible). The bend of trees, or grass, or sand-drifts may help in ascertaining the direction of the prevailing wind. If none of the above expedients is successful, he should go to very high ground and scan the country. If this is unsuccessful, he should retrace his own tracks, until he arrives at a point which is familiar to him. If the above efforts fail, he should wait for nightfall and the appearance of the stars and moon or prevailing wind.

45. ACTION IF CAPTURED. If the scout is taken prisoner, he should remember that by the international rules of warfare he is required to give *only* his name, grade, and serial number. He should answer no other questions and should not allow himself to be frightened by threats into giving any information. He should not give false answers but merely refuse to answer.

46. BOOBY TRAPS. For information on booby traps see FM 5–30.

47. ANTIPERSONNEL MINES. For information on antipersonnel mines see FM 5–30.

48. AMBUSH. The scout should be alert to avoid ambush. If seen, the scout should keep cool, pretend not to know he is seen, and instantly form some plan of offense or escape. If he is fired upon he can feign that he has been hit and seek cover; this may fool the enemy who may cease firing and try to find him. The scout fires only in self-defense.

Chapter 7

EXERCISES IN SCOUTING

Section I. CONCEALMENT

49. DEMONSTRATIONS. **a.** The instructor illustrates concealment during observation by showing the contrast between men observing properly and improperly from behind a tree, ditch, fence, rock, and bush, and in the open. He has some of the men wear the sniper's suit.

b. The instructor next takes his unit to a field where men have been properly and improperly concealed in observing and firing positions behind trees, rocks, bushes, and fences, in ditches, and in the open, from 50 to 150 yards away. He has the individuals of his unit search the ground for 2 minutes and make notes, stating when and where they see any of the partially concealed men. At the end of this time he blows his whistle as a signal for the concealed men to withdraw their heads and then to expose them only enough for observation. This exercise is repeated every 30 seconds for 2 minutes. At the end of this period the instructor again blows his whistle to have the men behind the fence, in the ditch, and in the open raise their heads slowly until their shoulders are exposed. The men behind the rocks and trees take positions to fire around incorrect side of their cover. The man behind the bush kneels. Then the instructor carefully explains the reason for the discovery of these men. He should emphasize the danger of quick movements and exposure while in observation.

50. PRACTICE. **a.** After dividing his unit into groups the instructor has the men of one group take concealed positions. The other group then tries to locate them.

b. The unit is divided into four groups. While three of

the groups turn their backs the fourth scatters and runs to a distance of about 150 yards. At a whistle signal the men of the moving group stop and take cover. The other groups face about and attempt to discover all within 2 minutes. This exercise is repeated, each group taking cover in turn. Results are compared.

51. CAMOUFLAGE. a. The scout is required to camouflage his helmet. Wire, burlap, and mud are available to the student. The student is allowed to use whatever materials he feels would be best suited to the task.

b. The scout is required to conceal himself and his weapons at any point he may select in the near-by area. The scout is given an allotted time in which to select his position and apply personal camouflage.

Section II. INDIVIDUAL MOVEMENT BY DAY

52. DEMONSTRATION. The instructor trains several scouts in the movements given below. These trained scouts then demonstrate while the instructor is explaining.

a. The prone position.
b. Preparing to change position.
c. Jumping up.
d. Running.
e. Dropping down.
f. Creeping.
g. Crawling.

53. PRACTICE. The instructor deploys his unit at 3-pace intervals and has the front rank face to the rear. He then has the members of each rank in turn practice each method of advance while the men of the other rank act as coaches.

54. DEMONSTRATION. The instructor demonstrates the proper use of cover and movement by taking his unit to a field and having the unit watch a man run across an open space from one piece of cover to another and a second man

crawl across the same open space. He has the unit watch a man move by rushes down a ditch and another man creep or crawl down the same ditch, so that the latter is constantly concealed.

55. PRACTICE. a. The instructor takes his unit to a field where there are two good observing positions 200 or more yards apart. At a point 200 yards from these he tells each man that he is a scout who has reached this point and asks him where he would expect to find the enemy in observation. The instructor next gives a direction of advance which passes between the two observation positions, and asks several men to point out the route for the next 200 yards, give reasons for their choice, and describe the method of moving in detail.

b. The instructor divides his units into four groups. He sends one group to each observation position with rifles and blank ammunition and orders its members to remain there in observation and fire at any man they see moving. The men of the other groups are permitted to select their own starting positions, are then required to move individually between the two observation positions, and re-form 100 yards beyond. When a shot is fired all halt. The firer points out the man he has discovered, who is ruled out by the instructor. At a designated time the groups change positions and the exercise is repeated.

56. DETERMINING DIRECTION WITHOUT COMPASS. The instructor gives a direction of advance and the men proceed individually to a point some distance away. As each man arrives at this point, he is started in a new direction at an angle of about 90°. At the end of about a mile an instructor tells each man to take the shortest route to the starting point.

57. SELECTION OF ROUTES. The instructor should give many indoor exercises with maps and airplane photographs in the selection of appropriate routes and in preparing the necessary notes before the start. The instructor should require actual practice in following at night two or more of the routes thus selected.

58. EXERCISES IN RECONNAISSANCE. a. Choice. The instructor gives his unit several simple reconnaissance missions, has each man assume that he is the scout responsible for these missions, and has each choose a route and the points to which he will go for observation.

b. Occupation. The instructor arranges one of the missions in reconnaissance to require observation from some point close at hand. He takes his unit in the field and shows them by demonstration the contrast between—

(1) A scout occupying a broken and an unbroken sky line.

(2) A scout moving in front of a door or window, one observing from the side of it, and one observing properly from a position back in the room.

(3) A scout not near the trunk of a tree that has a poor background and one properly concealed near trunk in a tree with a good background.

c. Approach. The instructor takes his unit to an observation position which the men have chosen from a map and has them answer the following questions:

(1) Where should one wait in observation before occupying the position?

(2) How long should he wait?

(3) How should the position be approached?

(4) How should the position be occupied?

The instructor now sends half his men to a point 100 yards beyond the position. He sends the other half, in pairs, to approach it and observe. Any men discovered are ruled out.

Section III. SCOUTING BY NIGHT

59. MOVEMENT AT NIGHT. a. Demonstration. The instructor demonstrates how much noise an untrained man makes in walking improperly. He then has a trained scout show the proper methods of silent walking on soft ground, on hard ground, and through grass. He has a trained scout demonstrate how to creep and crawl at night. He then has the men practice each movement using the coach and pupil method until all can do them satisfactorily.

b. Exercises. (1) The instructor divides his men into groups well separated. He blindfolds one in each group, places him 50 yards from his group, and has the rest of the group try to approach him noiselessly. The blindfolded man points toward any man he hears moving, who is ruled out. Group results are then compared.

(2) The same exercise is repeated at night without blindfolds and with the use of flares.

(3) At night the instructor divides his unit, posts one half as outguards and has the other half try to pass through the defense. Men discovered are ruled out. The groups change places and repeat the exercise. Group results are then compared.

(4) (*a*) *Crossing a trench.* Explain the method of crossing a trench. Have a trained scout demonstrate (by daylight) how to cross a narrow trench, pointing out the details of his movements. Have each front rank man, coached by his rear rank file, practice the movement. Then have each and pupil change places. This exercise should be carried out first by daylight, using very dark glasses, and later on a moderately dark night.

(*b*) *Crossing a wide trench.* Demonstrate and practice as in (*a*).

(*c*) *Crossing over wire.* Explain the method of crossing over wire. Have a trained scout demonstrate how to cross a wide band of low wire. Have each student, coached by his rear (front) rank file, practice the movement by daylight. Repeat the exercise with black glasses or blindfolded, and by night.

(*d*) *Crossing under wire.* Explain the method of crossing such an obstacle. Have a trained scout demonstrate how to cross under wire. Have each student, coached by his rear (front) rank file, cross under the band of wire. Repeat, wearing black glasses, blindfolded, or at night.

(*e*) *Cutting wire.* Have trained scouts demonstrate how to cut wire. Explain the details of the operation. Have each student and each pair of students cut a gap through a double apron fence.

(5) Place several blindfolded listeners 50 yards apart. Divide the class into several groups and let one man from

each group (wearing black glasses) approach each listener. Each listener will point out any man he hears approaching. If there is a man in the direction he points the referee will rule him out. Each man's score equals the number of paces he is from the listening observer when ruled out. Thus if he can reach the listener his grade is 0. If he is ruled out while twenty paces away his grade is 20. The group receiving the lowest score wins. Repeat with moving men blindfolded.

60. DETERMINING DIRECTION. The instructor shows the class *at night* how the North Star is indicated by the pointers of the dipper. Exercises should be held in which the scout is sent at night without a compass to a distant point and required to return, guiding his march by the stars or by prominent objects on the skyline.

61. RECOGNITION AND LOCATION OF SOUNDS. The instructor places his unit in position, listening. Certain sounds, like digging, cutting wire, whispering and coughing, are made at prearranged times. Each man is then required to estimate direction and distance and tell the character of the sound. This practice should be repeated in different kinds of weather.

Section IV. MAP READING

62. MAP READING. Instruction in map reading is based on FM 21–25. For conventional signs used on our military maps, see FM 21–30.

63. TERRAIN FEATURES. a. Each scout must study figure 30 and visualize the meaning of the terms.

b. The instructor takes his unit outdoors and calls upon individuals to point out features named or to name features pointed out.

64. SKETCHING. a. The instructor draws model sketches on the blackboard. He follows the method outlined in paragraph 29, and explains each step as he proceeds.

b. The scouts copy the instructor's sketches.

c. The instructor takes his unit outdoors, indicates a point, and has sketches of each type drawn by the scouts.

65. USE OF COMPASS FOR NIGHT MARCHES. a. The instructor demonstrates and explains in detail the method outlined in paragraph 33, step by step. The men under instruction, each provided with a compass, execute each movement as it is explained.

b. The instructor indicates certain points and has the azimuth to each determined and set off. He inspects the compasses and indicates errors.

c. The instructor has the men march on a given direction at night.

Section V. THE COMPASS

66. READING AZIMUTHS. a. The instructor gives the correct azimuths and distances to various objects. Each man is required to write a description of each object. All azimuths read by the compass are magnetic azimuths.

b. Obtaining azimuths from map. Each man is required by use of compass and map to find the azimuths of at least five points not visible from his position.

c. Marching by compass. The instructor gives various directions of advance and requires each man to point out the first point to which he would march in following that direction.

d. The instructor takes the azimuth of a distant object from the map. He has his men start at 3-minute intervals and march to the object.

Section VI. OBSERVING

67. SEARCHING GROUND. The instructor takes his unit to a point overlooking a field where groups of men and individuals have been partially concealed. He has his men search the area described above. As each man locates one

of these he notes its compass direction and range on a sheet of paper which he turns in or compares with the correct data.

68. ESTIMATING TROOP STRENGTH. a. The instructor has a company or larger unit march in column of squads at a distance of 500 yards. The scouts observe and estimate its size. Two platoons deploy and advance in squad columns, in skirmish line, by rushes, and by infiltration. During the above advance another platoon appears on the flank and advances by rushes or infiltration. During the movement of all three platoons a group about 200 yards away from them springs up, advances at a run, and drops to cover after going 50 yards. The scouts are required to estimate the strength of the advancing forces.

b. The scouts should be shown how the dust clouds caused by cavalry, infantry, automobiles, and artillery differ.

69. TRACKING. a. The scouts are required to look in a certain direction for 1 minute, face about, and tell what they have seen; to describe some person who has just passed; to look at a building for a short time and then describe it; to tell how many houses have been passed on a march. For indoor work, drawings cut from magazines can be used. The scouts are permitted to look at the picture for 1 minute, and are then required to turn it over and describe it. Exercises such as the above are unlimited and should be held until every scout can take in all the details of an object at a glance.

b. The scouts are required to examine a road and tell the different kinds of animals and vehicles that have passed over it.

c. On an unused road or field the instructor has a man walk and run, a horse walk, trot, and gallop, and troops march at route step. The scouts should be present and examine the tracks immediately after they are made, again in 20 minutes, and once every day for 3 days.

70. OBSERVATION POSTS. The instructor has his scouts, working in pairs, choose observation posts overlooking an area in which men expose themselves at scheduled times, that is, fire a rifle, smoke a cigarette, flash a mirror

in the sun, etc. The scouts observe and note all indications of the assumed enemy. They should be cautioned to report exactly what they see, not what they think it may be. Their reports should be checked. Each should contain the time, the direction, the distance, and the event observed. For example: 0922, 65°, 700 yds., man running W. in draw.

71. OBSERVATION AT NIGHT. Exercises similar to those outlined in paragraphs 61 and 190 should be given after the exercises contained in section VII have been taken up. The men undergoing instruction should be required to identify and estimate the range to figures exposed on the skyline and to lights that are exposed for brief periods of time.

Section VII. NIGHT VISION

72. GENERAL. In giving instruction in night vision the instructor must remember that it takes approximately an hour to attain full dark adaptation. The instructor must therefore arrange his presentation to maintain the interest of the class during this period. Demonstrations should be conducted under conditions of very low illumination. Bright, moonlight nights are not suitable for work of this nature. The site selected for demonstrations should offer prominent and easily distinguishable objects at such distances as can be distinguished when the eye is adapted and not before. Lights over one half mile away will not interfere but care must be taken to select a site where traffic or similar lights will not interfere with the demonstration. Trucks, tanks or men may be placed in the area for identification. The order in which the following exercises are presented should be followed to achieve satisfactory results.

73. DARK ADAPTATION. Expose class to a bright light for five minutes. This may be done indoors or outdoors using vehicle headlights. Have class direct attention to a certain part of the landscape. While the eyes are becoming adapted to the dark the instructor explains dark adaptation.

He asks if anyone has seen anything and points out the indefiniteness of any objects seen. He has the men give their impressions over a period of 5 minutes emphasizing the uncertainty of impressions before full adaptation. The instructor points out the great disadvantage a man has without adaptation compared to an observer who has full adaptation.

74. FADING OF VISION. The instructor discusses the fading out and coming back of objects and explains this as a normal part of seeing in the dark. He points out that some men take longer to attain night adaptation than others do.

75. OBSERVING OBJECT. The instructor has each man look directly at an object and then a little to either side of it. He explains why the object appears more plainly when observed from a side. He has each man practice correct searching. (See par. 37b.)

76. DAZZLE PHENOMENA AND EYE STRAIN. The instructor asks if anyone has noticed any stars or flashes of light spots in places where there are no stars. He explains that this is a naturaf phenomena and that care should be taken not to confuse them with actual stars and flares. He also explains that the eyes are subject to strain at night just as well as in daylight.

77. PROTECTION OF NIGHT VISION. The instructor emphasizes the importance of protecting the eyes at night from lights and luminous dials. He demonstrates the use of red light, red goggfes and covering one eye. He discusses the importance of keeping windshiefds, glasses and binoculars clean to reduce eye strain.

Section VIII. MESSAGES

78. WRITING MESSAGES. Point out any terrain object, such as a tree or a house, and direct the scout to write a

message to Lt. A. at some definite point a mile away, locating and describing the object. Require the scout to make a simple sketch to accompany the message. Correct mistakes. Repeat this as often as necessary, varying the situation to include various actions, until each scout can write a message quickly and accurately.

PART TWO

PATROLLING

Chapter 8

GENERAL

79. DEFINITION. A patrol is a detachment of troops sent out from a larger body on a mission of reconnaissance, security, or combat.

80. TYPES OF PATROLS. There are two general types of patrols, as determined by their assigned mission: reconnaissance patrols and combat patrols. Within these general classifications, patrols are named according to the specific mission assigned. For example, a combat patrol given the specific mission of raiding an enemy area or command post may be called a raiding patrol.

a. Reconnaissance patrol. Reconnaissance patrols are used primarily to secure information, maintain contact with the enemy, or observe terrain. They are frequently used to precede a leading platoon or company as it moves forward prior to, or during an actual attack. They avoid unnecessary combat and accomplish their mission by stealth. Reconnaissance patrols engage in fire fights only when necessary to accomplish their mission or to protect themselves. (See ch. 15.)

b. Combat patrol. A combat patrol executes missions which may require fighting to accomplish, or to help accomplish. It might well be termed a fighting patrol. Every combat patrol secures information as a secondary mission. It takes prisoners only if so ordered.

81. NECESSITY FOR PATROLLING. Commanders of ground troops depend to a great extent upon patrols to furnish them with accurate and timely information, to assist in carrying out the larger mission, and to perform limited combat operations. As our forces approach the enemy, the number of patrols and their activity increase. They are used for many types of missions. These include reconnoitering, carrying out limited offensive missions of destruction or capture, preventing the enemy from gaining information, clearing up a hazy situation, locating enemy lines and installations, destroying matériel and transportation, diverting enemy attention so that an attack or maneuver can be made by other forces, and covering the flanks of the main body in the offense or defense. When patrols are used in connection with covering security detachments, they are useful for such missions as determining whether woods or other terrain features are occupied and providing flank reconnaissance. When it does not interfere with their missions, all patrols assist artillery, mortars, machine guns, and other supporting weapons by reporting the location of targets.

82. RELATION OF PATROLLING TO SCOUTING. Every man in a patrol should be well versed in the principles of scouting. As a member of a patrol, however, he must consider himself as a member of a larger team. This requires additional training beyond that which is required to become a well-trained scout. A patrol member must respond quickly to the decisions and orders of his leader. There must be complete confidence between all members of the patrol and the confidence that they as a team will be successful in their mission.

Chapter 9

PREPARATIONS

Section I. DUTIES OF HIGHER COMMANDER

83. RESPONSIBILITIES. The higher commander is responsible for—

a. Selecting the patrol leader.

b. Giving him all relevant information, pertaining to—

(1) Mission.

(2) General routes to be followed.

(3) Enemy dispositions.

(4) Location and activities of friendly troops.

(5) Outpost or other security elements through which the patrol is to pass.

(6) Terrain conditions.

(7) Missions and routes ol other patrols.

(8) Time patrol ia to return.

(9) Place where messages are to be sent or the patrol ia to report.

(10) The challenge, password and reply to be used during the time the patrol is on its mission.

c. Furnishing the patrol leader with the means for accomplishing the assigned mission.

d. Detailing specialists and the unit to furnish the patrol, unless the patrol leader ia permitted to select individual patrol members. (See par. 91.)

e. Designating the size, compoaition, weapons, and equipment of the patrol.

f. Giving the patrol leader special instructions, such as reports he will be required to make and areas to be avoided.

g. Insuring that the patrol will be lurnished promptly with food, drink, and rest upon its return.

84. SELECTION OF PATROL LEADER. a. The higher commander keeps the accomplishment of the mission in mind when he selects the patrol leader; the more important the mission, the more careful his selection must be. A good patrol leader should have judgment, initiative, courage, endurance, and be a highly skilled leader.

b. The patrol leader should be selected well in advance of the time scheduled for the patrol to leave. When possible, he should have time during daylight to plan the operation of his patrol and to make any necessary reconnsissance.

c. If a complete unit is designated as a patrol, the unit leader will normally be the patrol leader.

85. MISSION. The mission assigned by the higher commander to the patrol leader must be specific and unmistakable; indefinite missions invite confusion, casualties, and failure. One patrol cannot be expected to execute efficiently a number of involved missions. It is preferable to employ a number of patrols, each with a single mission. The patrol must never abandon the mission if there is the least possibility of accomplishing even a part of it.

86. SIZE OF PATROL. a. On some occasions, only a small patrol can best accomplish a mission; on other occasions, it may be necessary to send a strong combat patrol to fight for information or to take prisoners. The size of a patrol depends upon:

(1) Its mission.
(2) The terrain and visibility.
(3) Its distance from friendly troops.
(4) The time it will be out.
(5) The number of messages it may be required to send back.
(6) Whether prisoners are to be captured and sent back.

b. In general, a patrol should consist of the least number of men needed to accomplish the mission, with due regard to safety, the available time, and message requirements.

c. A patrol consists of two or more men. Three men, however, may be regarded as a basic team. This team provides a point, who observes to the front and flanks; a rear

point; and a leader, who observes tree targets, sees that direction is maintained, observes the point and rear point for signals, and selects the route from one terrain feature to the next.

d. Combat missions ordinarily require stronger patrols than reconnaissance missions, although the latter may have to fight at times in order to obtain their information and to get back with it.

e. Patrols operating at considerable distances from friendly troops must be stronger than those used for close-in work; there is greater danger from attacks and more need for equipment.

f. A patrol must include enough messengers to meet the requirements of the mission. If a message is required every hour during a 6-hour patrol mission, at least five messengers must be provided, plus one or two additional ones for emergencies.

g. Small patrols of three to six men can move rapidly and are readily concealed, but cannot return information by messenger.

h. Patrols larger than a squad are harder to control and to conceal, tend to be noisier, and usually make slower progress; but they can send frequent messengers without losing their effectiveness.

i. When an area is reached where detailed reconnaissance is required, a central base of operations can be established, and a number of two or three-man patrols sent out from there. This effective method for investigating a large area may determine the size of a patrol.

87. TIME OF PATROL'S RETURN. a. Duration of mission. Patrols should be allowed sufficient time to accomplish the mission. They should not be required to accomplish in a night what would require 24 hours or more of effort. Too many patrol leaders are inclined to be impatient and attempt to accomplish their mission in too short a time, thereby being insufficiently thorough and creating an unnecessary risk of detection.

b. Hiding out. Some patrols in order to complete their mission may be required to hide out during daylight hours

in the proximity or behind the enemy lines. At times the duration of the hiding out may be extended to several days. During this interval the patrol should move to a new bivouac each night. Hiding out may be necessary in order that the patrol may cross certain areas or return to friendly lines during the hours of darkness. Hiding out requires perfect discipline within the patrol.

88. REHEARSALS. If practicable, the higher commander prescribes rehearsals so that each patrol member becomes familiar with his duties in the forthcoming activity and the patrol learns to function as a team. The nature of some missions, particularly those of combat patrols operating at night, requires that rehearsals be conducted on an accurate reproduction of the terrain of the enemy installations or matériel to be encountered. Captured enemy equipment and armament may be used to add realism to rehearsals. Through repeated training, each member of a patrol learns to do his part correctly and unhesitatingly. Thus individual confidence in the ability of the patrol as a unit is gained.

89. S–2. a. General. The S-2 keeps the commander informed of the enemy's situation and capabilities. He not only has patrols sent out to collect information about the enemy and terrain, but also sees that all patrols about to go on missions are provided with the latest information about the enemy and terrain. Due to the nature of a particular mission, the S-2 may act for the commander and give the patrol leader the necessary orders and instructions. Sometimes the S-2 supplements the commander's orders with any special information bearing upon the patrol mission.

b. Supplies maps. The S-2 supervises mapping activities and the supply and distribution of maps, map substitutes, and aerial photographs. If the necessary map(s), aerial photographs or sketches required by the patrol have not been furnished, they should be secured from the S-2 by the patrol leader.

Section II. PRELIMINARY DUTIES OF PATROL LEADER

90. PRIOR TO WARNING ORDER. a. Duties. If the patrol leader does not understand his assigned mission or any other point, he should ask questions until he understands all matters completely. After he receives his orders and instructions, the patrol leader plans his operation in sufficient detail to be able, when time permits, to issue a warning order. Prior to issuing this order, he does some or all of the following:

(1) Secures as much information as possible pertaining to his mission and the enemy situation. He consults S–2, if necessary.

(2) Makes a map study.

(3) Makes a preliminary estimate of the situation and decides upon—

(*a*) Chain of command.

(*b*) Rate of march.

(*c*) Equipment to be carried.

(4) Appoints his second-in-command and gives him (and any junior leaders) instructions.

(5) Formulates his warning order.

b. Chain of command. The patrol leader selects his second-in-command with care. The second-in-command is the patrol leader's first assistant in planning and carrying out the patrol mission. He must be designated in the patrol order to avoid confusion and loss of effectiveness in case the leader becomes a casualty. The chain of command should be extended so that there will never be a question as to who is in command. If a complete unit is to be the patrol, the second-in-command of the unit will normally be the second-in-command of the patrol.

c. Rate of march. A patrol leader should calculate how fast the patrol must travel in order to cover the route assigned in the allotted time, and in order to decide upon the equipment to be carried. Rates of movement will not be the same throughout but will vary between objectives, depending on differences in terrain, proximity of the enemy, the time

of day, and the amount of detailed observation required. The possibility of skirmishes and the necessity of circuitous routes to avoid enemy groups or installations must also be considered. The leader must look ahead and calculate the amount of time that will be required between intermediate objectives and plan to move accordingly.

d. Equipment to be carried. A patrol should travel light to reduce fatigue and to be able to use its weapons freely, but sufficient equipment must be carried to insure effective action. In the jungle, for example, machetes are needed to cut trails, and entrenching shovels are useful if combat develops. At least two compasses (one for the leader and one for his second-in-command) and a pair of field glasses should be carried by every patrol, regardless of terrain conditions. Rations are carried only on long missions, and then in minimum amounts. Tablets for chlorination of drinking water should be carried. A radio should be taken if it can be used to send back messages, direct artillery fire, or can otherwise assist in accomplishing the mission. (See par. 130b.)

e. Weapons. (1) *Fire arms.* The service rifle, automatic rifle, submachine gun, carbine and pistol are excellent patrol weapons. Hand grenades are valuable to supplement the fire of the flat-trajectory weapons. The antitank grenade and rocket are effective against armored vehicles, pillboxes, and grouped personnel. A 60-mm mortar may be used to dislodge enemy groups which are beyond the range of hand grenades and which cannot be reached by flat-trajectory weapons.

(2) *Silent weapons.* The bayonet is one of the patrol's principal weapons. Other silent weapons, such as blackjacks, clubs, pistol butts, knives, and brass knuckles, are necessary for patrols operating behind the enemy lines or at night. The small axe, machete, and trench knife or bayonet are excellent for cutting or stabbing. A cord or garrote is useful for strangling.

(3) *Choice.* The patrol leader decides which firearms will be used, depending upon the mission and the proficiency of the patrol members. He may leave the choice of silent weapons to the individual.

f. Ammunition. The amount of ammunition the patrol leader decides to take depends upon the mission, the expected enemy action, and the length of time the patrol will be out. Tracer ammunition is seldom used by a night patrol as it discloses the firer's position. When the patrol expects to return before daylight, no tracer ammunition is carried unless the higher commander has designated that it be used for signals, such as pointing out the location of the patrol to the friendly lines, or indicating targets for supporting weapons.

91. SELECTION OF PERSONNEL. a. Patrol members. A unit or the personnel to compose the patrol may be selected by the company or higher headquarters. The patrol leader may, however, be allowed to select the members of his patrol. He usually picks men from his own organization, for he knows their capabilities and they are more likely to have confidence in him. He should choose all patrol members with the patrol mission and the expected difficulties in mind. Patience, resourcefulness, and physical endurance are requisites. The men should be intelligent, physically able, and have good eyesight and hearing. Individually and collectively, they must possess the will to close with the enemy. They should be trained and rehearsed to work together as a team.

b. Specialists. Specialists, such as men proficient in the use of demolitions, are included in the patrol when the mission requires. In addition to their specialty, these men should have the same basic qualifications as other patrol members.

c. Inhabitants. Inhabitants, proven to be friendly, may be used as guides. They may be able to furnish valuable and timely information about the enemy. Such a guide should be kept under continuous observation from the time he joins a patrol.

92. WARNING ORDER. The patrol leader notifies the men or unit(s) of their selection, assembles them, and issues the warning order. It may include all of the following:

a. Brief statement of the situation, including the composition of the patrol and the designation of a second-in-command.

b. Statement of the mission, if it can be divulged at this time.

c. Time of patrol's departure.

d. Designation of certain patrol members to obtain—

(1) Rations.

(2) Ammunition.

(3) Special equipment, such as message books, a watch, compasses, wire cutters, rope, field glasses.

e. Directions to all patrol members to—

(1) Obtain water.

(2) Dress in the prescribed uniform and check clothing and necessary equipment for serviceability.

(3) Remove all letters and documents, identifying marks, shiny equipment, and objects that rattle.

(4) Insure that weapons are in good condition.

f. Set the time for reassembly to receive further instructions of the patrol leader.

93. PRIOR TO PATROL ORDER. a. Duties. During the interval between issuing the warning order and the patrol order, the leader must plan his operation in detail. He does some or all of the following during this period:

(1) Makes a personal reconnaissance and estimates the situation, deciding how best to carry out his mission.

(2) Distributes special weapons, equipment, and clothing. If tracer ammunition must be carried, he distributes it to selected men with special instruction for its use.

(3) Prepares the area for rehearsals and conducts them with assistance provided by the commanding officer.

(4) Insures through his unit commander that all friendly troops through which the patrol must pass are informed of the patrol's activities.

(5) Coordinates his proposed actions with other patrol leaders who will be operating in the same area.

(6) Inspects the patrol just before rehearsals, if any, and before departure for—

(*a*) Physical fitness.

(*b*) Completeness and suitability of arms and equipment, checking personal equipment to make sure that no one is carrying excessive weight or articles that are shiny or noisy.

(*c*) Removal of items of identification or other articles that would convey information to the enemy.

(7) Reports to the higher commander when he is ready to leave, if his departure was not set for a definite time.

(8) Issues his final order and instructions.

b. Factors to be considered. Before issuing the final order, the patrol leader must consider in detail each point to be covered in it. The following considerations are common to all patrols:

(1) *Information of enemy.* The patrol leader must consider the racial and fighting characteristics of the enemy, together with his methods of operating and fighting, in order to plot a course of action that will take advantage of enemy weaknesses. He must know how to counter the enemy's tricks and how to divert his attention. For example, if the enemy challenges or gives false orders in English, the patrol leader may detect him because he knows that the letter *L* is difficult for the Japanese to pronounce, and the letters *W*, *R*, *P*, *T*, and *TH* are difficult for Teutonic races. Other enemy tricks may include:

(*a*) Wearing our uniform or that of an ally.

(*b*) Displaying deceptive strength at one or more points in order to conceal his real purpose.

(*c*) Using firecrackers and beating on bamboo to simulate the fire of automatic weapons.

(*d*) Exposing a few men to draw fire while hiding the main enemy group in an attempt to make the patrol reveal its exact position.

(*e*) Ambushing.

(*f*) Installing booby traps.

(*g*) Using dummies.

(*h*) Faking surrender or death. (See figure 44.)

(2) *Information of our troops.* The patrol leader must know the plans of the main force and of other friendly patrols so far as they may affect the accomplishment of his

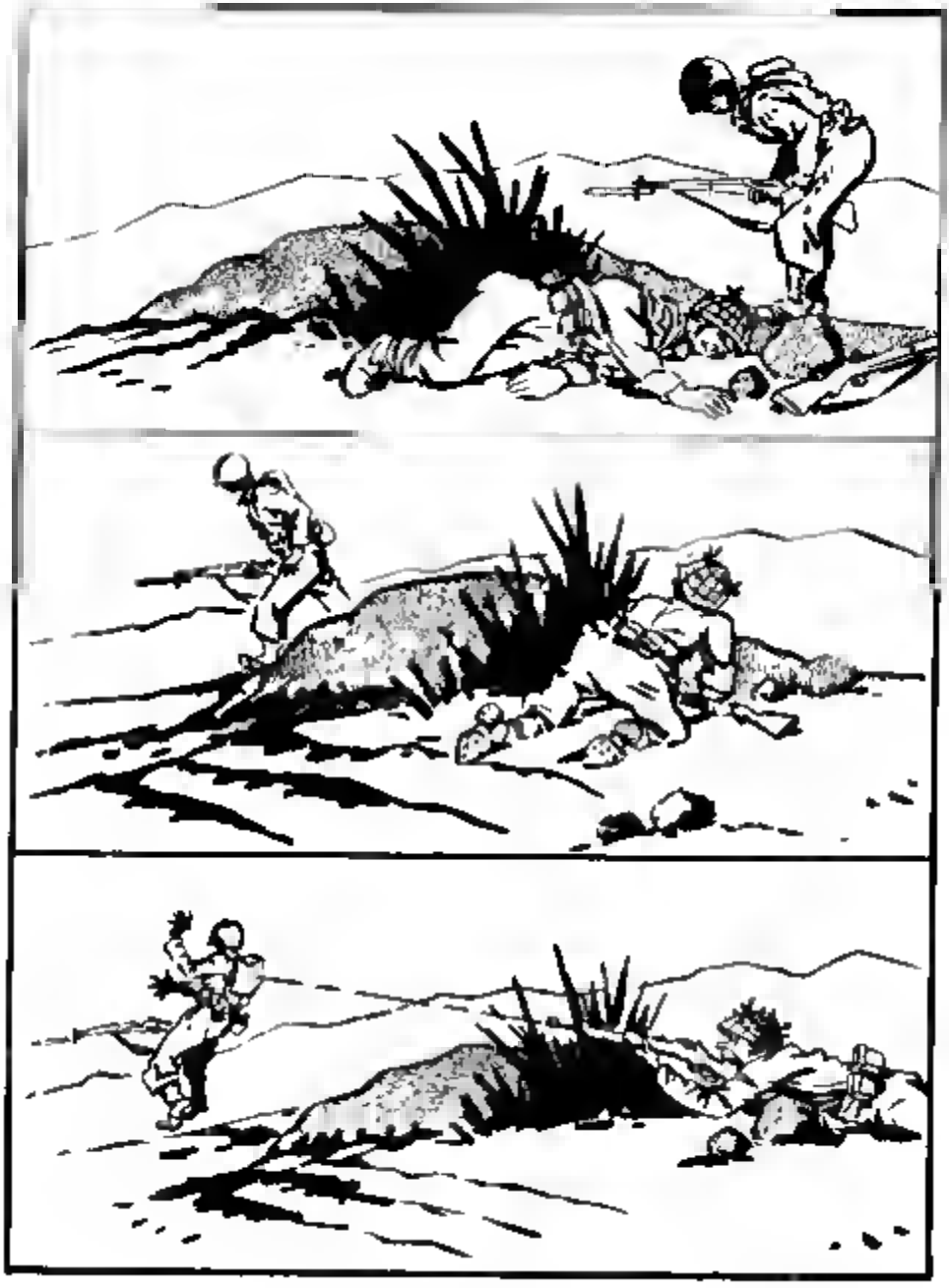


Figure 44. Enemy who appear dead may not be.

mission. He secures this information from the higher commander or the S–3. Before the patrol leaves the friendly front lines, the leader informs the nearest unit commander of his proposed route and obtains from him the latest information concerning friendly and enemy troops in the vicinity.

(3) *Mission.* The patrol leader must be sure that he understands the mission of the patrol in detail and is able to explain it to the patrol members.

(4) *Selection of routes.* (*a*) *Information of terrain.*

1. Maps and aerial photographs provide a means of quickly securing information about the terrain. They are especially valuable in selecting routes, observation points, and determining possible plans of action. Maps, however, must be checked against the ground. If the S–2 or higher commander has not taken the patrol leader to an observation post by daylight to study the terrain, plan the route, and compute distances, the patrol leader should go himself, possibly with his second-in-command. They should examine the terrain first and then the map, if one is available, studying the defensive potentialities of the enemy position and attempting to analyze where his defenses would be. This is important, as terrain and visibility influence the size of the patrol and the choice of its members. They affect the duties to be assigned to each patrol member, the distance flankers cover to the flanks, the distance the point precedes the patrol, the position of the leader, and every detail of the operation.

2. If there is time, the patrol leader supplements his map study with a terrain reconnaissance. He notes probable danger areas, such as crossroads, villages, high points where enemy observers may be stationed, and open terrain. Woods with little underbrush offer few obstacles to movement, while thick underbrush may be impenetrable. The edge of a stream

bed or a fence line usually offers a concealed route. Many small features of the terrain, not shown on the map nor recognizable on an aerial photograph, offer concealment to a patrol; for example, growing crops and small folds in the ground. The recent weather must also be considered when determining the route of a patrol. Low ground, creek bottoms, swamps, and streams, may or may not be passable, depending upon the amount of rain that has fallen. (See pars. 11 and 12.)

3. The best route is one that affords concealment from the enemy, where little or no enemy opposition is expected, and where there are a minimum of obstacles to the patrol. The route selected for travel by day will frequently lead through woods, swamps, water courses, and over difficult slopes rather than across more open and dangerous terrain.
To lessen the possibility of enemy ambush, the return route is usually different from the one used on the outward trip. Both routes must allow for detours if enemy obstacles make them unusable.

4. If the patrol is to operate at night, the leader plans his route to take advantage of the darkness and to avoid the pitfalls it presents. He will plan his route to avoid high ground and the skyline. Enclosures containing animals, farmyards, stables, barns and pastures should also be avoided. If this is not possible he will pass them on the down-wind side. Terrain features such as patches of brush, fences, hedges, or woods, which make silent movement difficult, must be avoided. Though the enemy observation is limited, his sense of hearing is increased. Soft ground, dust or sand must be avoided, if his mission requires that the enemy remain in ignorance of the patrol's

presence. The compass bearings and location of prominent terrain features near the patrol's route should be noted down before the patrol proceeds on its mission. A daylight reconnaissance is invaluable. (See pars. 22 and 24, and fig. 45.)

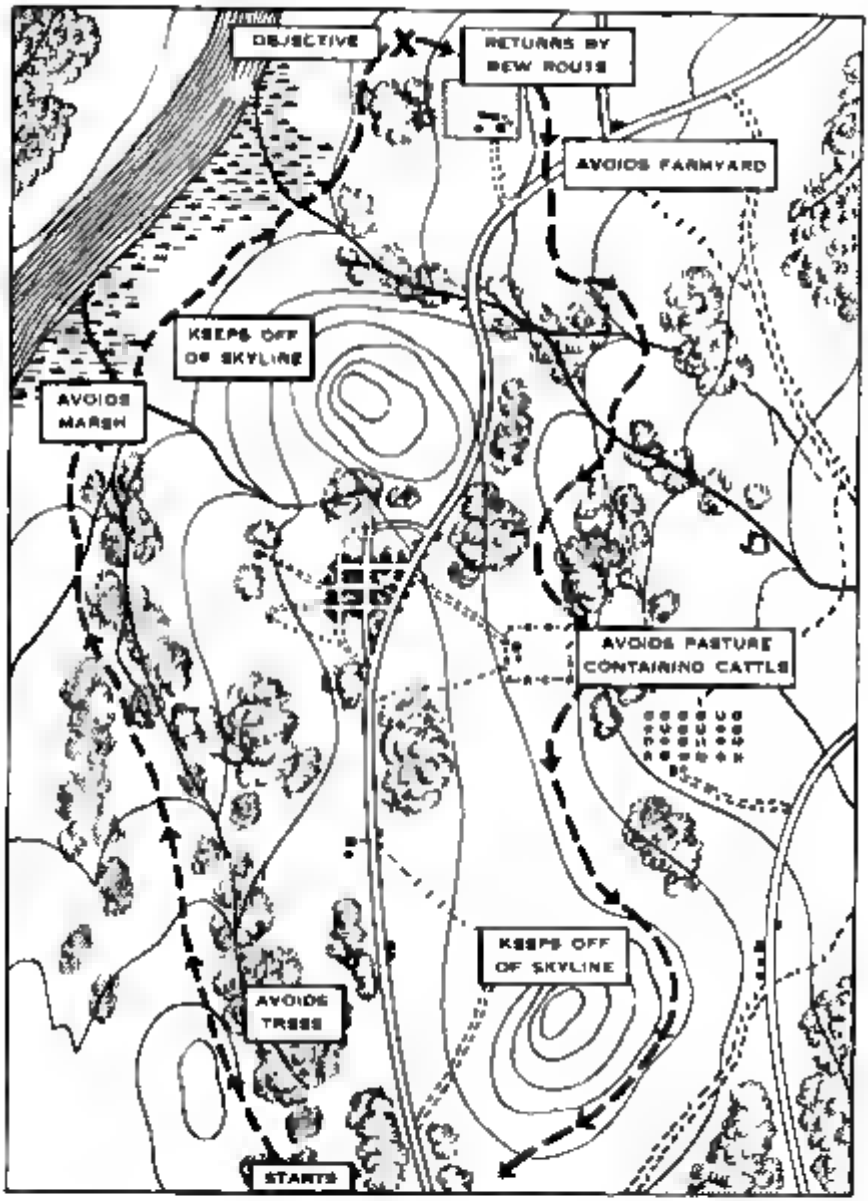


Figure 45. Route of a night patrol.

(*b*) *Visibility.* Visibility depends upon the terrain, vegetation, time of dsy or night, fog, rain, dust, and smoke. Good visibility is sn aid to reconnaissance patrols but a disadvsntage to patrols seeking to close with the enemy. When visibility is good, broken country affords greater opportunity for movement by covered and concealed routes; flat, open country generally restricts a patrol's movements.

(*c*) *Avoidance of ambush.* The possibility of ambush is a prime consideration when selecting the routes available to a patrol. The enemy may lie in ambush to destroy the patrol while it is canalized between two obstacles. The route selected must avoid such obstacles and situations where the patrol's avenues of escape would be limited. Routes that have recently been used by other patrols should be avoided. (See par. 125.)

(5) *Initial assembly point.* An assembly point is a designated location at which the patrol members assemble upon order, or in case they are dispersed. Before the patrol starts on its mission, the leader should select an initial assembly point in the vicinity of the starting point or friendly outpost. (See par. 112.)

(6) *Formations.* The leader must consider all possible formations that the patrol may have to use while on its mission. During rehearsals, he trains the men until they are thoroughly familiar with these formations and can change from one to any other, operating smoothly as a team. He practices controlling the patrol's direction, rate of movement, and halting. (See ch. 10.)

94. PATROL ORDER. a. When not preceded by warning order. When there is not time for a warning order, for example when the patrol must leave immediately, the entire patrol order is issued at one time. The patrol leader must supplement this order as necessary while the patrol proceeds on its mission.

b. Issuing patrol order. Prior to issuing the patrol order, the leader inspects his patrol for fitness and compliance with the warning order. He then assembles the patrol around a map, chart, or sketch on the ground which illus-

trates the area over which the patrol is to operate, and gives the order, pointing out on the ground as well as on the visual aid the first objective and the initial assembly point. The order should be informal and in the patrol leader's own words. He does not announce paragraph numbers. He repeats as necessary. Before starting on the mission, the patrol leader questions individual patrol members to make sure that each knows what his particular job is, what is expected of him, where the patrol is going, what it is to do when it gets there, and when and where it will rejoin its organization.

c. Form. An order to a patrol should follow the prescribed form for field orders, although a patrol order may be given fragmentarily. By using the five-paragraph field order form, the patrol leader is less likely to make omissions or unnecessary remarks. In general practice, the subject matter covered in paragraphs 1, 2, and 4 of a field order is given in the warning order, while details of employment covered in paragraphs 3 and 5 are given in the final order, preceded by brief reviews of the material in paragraphs 1 and 2. Briefly, the form for an order is as follows:

(1) (*a*) Information of the enemy. (What are we up against?)
(*b*) Information of our troops. (Who is going to help us and where are they?)

(2) Mission of the patrol. (What do we have to do?) This should include routes going and returning. (How do we get there and back?)

(3) Designation of specific duties to individual patrol members by name. (Who is going to do what?) Specific orders for flank protection must be included regardless of the formation to be used. The patrol leader also gives instructions that apply equally to all members, such as the first objective and initial assembly point, where messages are to be sent (in case the leader becomes a casualty), and special signals to be used.

(4) Items of equipment, ammunition, and supply. (What do we have to carry?)

(5) Where the patrol leader will be. (See par. 102*b* (1).)

d. Fragmentary orders. Fragmentary ordera may be more applicable for a particular patrol and mission than a complete order. For example, il time is pressing the patrol leader may firat give instructions pertaining to weapons, rations, equipment, and the time ol departure and not complete his order until alter he inspects the patrol.

95. CHALLENGE, PASSWORD AND REPLY. a. The challenge, password and reply must be known by a patrol prior to ita departure. It must also know of any additional checks to guarantee identification that will be in use when the patrol returns. (See par. 113*b*.)

b. A distinctive recognition sign and a reply must be devised for use among patrol members. Natural aounds, such as bird calls, may be used when necessary for night patrolling. If words must be used, they should include syllablea difficult for the enemy to pronounce. (See par. 93*b*. (1).)

Seetlon III. PREPARATION BY PATROL MEMBERS

96. SECOND-IN-COMMAND. Aa the patrol leader'a firat assistant, the second-in-command helps plan aa well as carry out the mission. Prior to the patrol's departure, he relievea the patrol leader of some of his duties, such as making overlaya or aketchea il there are not aufficient maps available for the patrol. By helping the leader plan the operation, the second-in-command becomes lamiliar with all of its aspects so that he is fully able to take over command of the patrol if the leader becomes a casualty.

97. MAP MAN. In a large patrol, a qualified member may be designated as a map man. His duties are to assist the leader in maintaining proper direction of movement and to keep a constant check on the location of the patrol at all times. This does not, however, relieve the patrol leader from responsibility.

98. PATROL MEMBERS. **a.** Unless detailed by the patrol leader to a special duty, such as obtaining rations, ammanition, or special equipment, patrol members are responsible only for their own individaal preparations before starting on the mission. They must comply with all instructions given them in the warning order, dressing in the prescribed uniform; checking on the serviceability of clothing, weapons, and equipment; and reassembling *on time* to receive the patrol order. If a patrol member is not in good physical condition, he should report this to the leader. A man with a cold, who is liable to sneeze, for example, is a liability on a patrol. Although the leader checks over the men before they start out, as well trained scouts, they know how to look after themselves. No man will wear shoes that squeak or take along any objects that might identify him to the enemy, in case of captare. (See par. 43.)

b. Prior to starting out on the mission, practice with the patrol leader in maintaining contact, controlling the direction and rate of movement, and in starting or halting all or parts of the patrol is essential. However good the patrol leader, he cannot succeed alone; all patrol members must be trained to work as part of a team commanded by him. Rehearsals should be held if possible. Individaal members who do not understand special signals, duties, formation, and similar matters should ask the patrol leader to clarify these points before the patrol starts out.

Chapter 10

FORMATIONS

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99. GENERAL. a. Patrol formations are not hard and fast arrangements of personnel, they are fluid and flexible. Individual members take their relative positions in the formation on signal from the patrol leader, depending upon their ability to see each other and, at the same time, make full use of cover and concealment.

b. Within a designated formation, points and flank groups move in and out as required in order to observe any cover for an enemy up to 100 yards, provided the inside man of the group can maintain visual contact with the patrol leader.

c. Individual patrol members automatically move closer together in thick cover, fog, and at night; and farther apart in open terrain, clear weather, and in daylight. In general, however, the lateral movement of flank groups is limited to 100 yards from the axis of advance.

100. SELECTION. a. Influencing factors. The mission, terrain, visibility, security, enemy action or fire, control, size of the patrol, and the required speed of the action influence the formation of the patrol. A patrol may have to employ a number of formations during its course of action. When visibility is poor, as in foggy weather, darkness, thick woods or jungle, a single column formation may be used. When visibility is good, contact between patrol members is facilitated and a diamond formation, or a variation of it, might be used.

b. Requirements. The formation taken by the patrol at any time should insure that the minimum number of men will be pinned down by fire if attacked. Each formation must permit movement in any direction and a quick change to another formation by signal.

101. FORMATIONS. The formations described here are suggested for normal terrain; usually, there will have to be modifications for other terrain. In the diagrams of patrol formations in this manual, the intervals and distances between the patrol members are to be regarded as average. In actual use, they must be adjusted to meet the changing requirements of the terrain, enemy or enemy fire, and visibility.

a. Diamond formation. The basic formation is the diamond formation as prescribed for the squad in FM 22–5. It is particularly effective in providing all-around security. Control by the leader is facilitated by its use.

(1) *Eight-man patrols.* The eight men are generally arranged in pairs at the four points of the diamond. (See figure 46.) In operation, one man of the leading team observes for ground targets, while the other man (the leader) looks for tree snipers. The flank men operate similarly, with the outside man (the ground observer) in advance of the inside man, so that the protecting fire of the inner man will be directed away from the patrol when his partner encounters resistance from tree snipers. The rear pair divides responsibility by having one man observe to the rear and one flank, while the other watches the patrol leader and the other flank. To facilitate control, all inside men must maintain visual contact with the leader. The direction of movement is easily changed in a diamond formation upon signal toward either flank or to the rear, and the same formation and individual functions continue.

(2) *Nine-man patrols.* A patrol of nine men functions in exactly the same manner as an eight-man patrol, except that the leader, instead of being an integral part of a two-man scout team, is free to move from place to place as the patrol changes direction. There is considerable advantage in having the leader more mobile. In a nine-man patrol, he usually travels with the point.

(3) *Twelve-man patrols (and larger).* Patrols of twelve men or more assume the diamond formation by having four groups, of two or three men each, arranged so that the entire patrol is in a diamond shape. Individuals within each

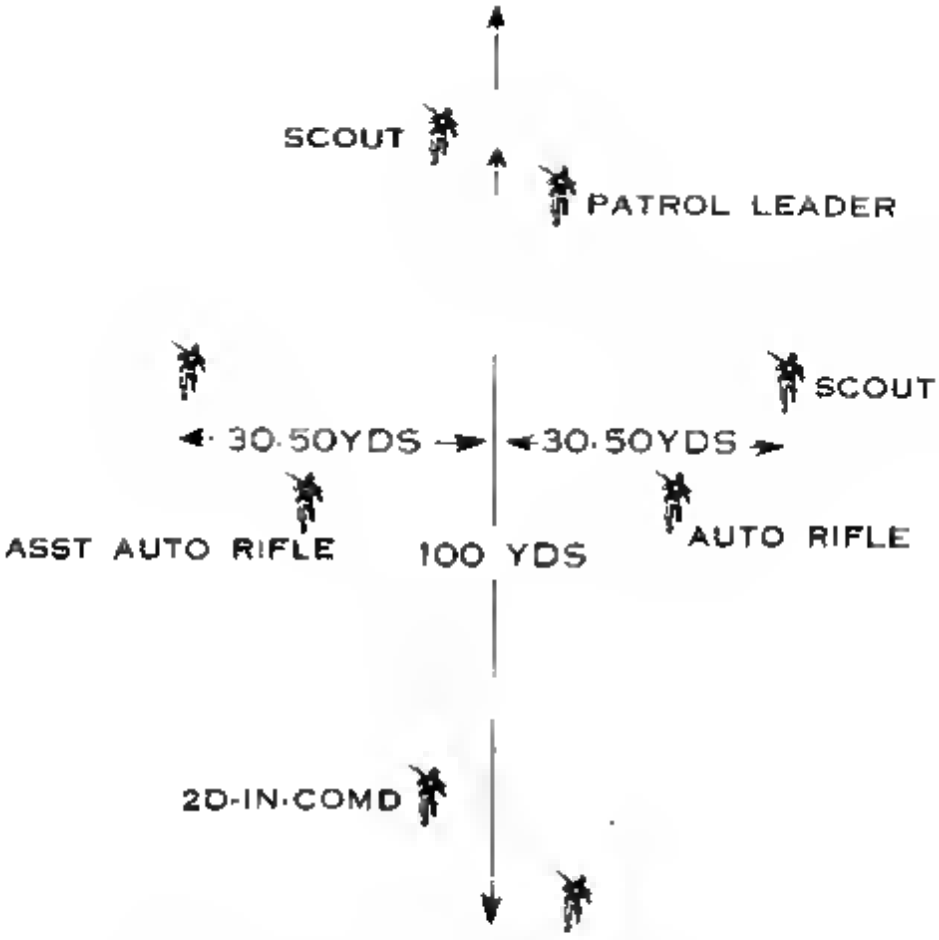

Figure 46 Diamond formation, eight-man patrol.

group are separated from each other by 5 to 20 yards. The point and rear point groups are essentially three-man scout teams. (See figs. 47, 48, and 49.) The flank groups (two men each) move so that the outer scout is slightly ahead of the inner. The leader normally travels with the leading group. Intervals and distances between the four groups of the diamond vary according to terrain conditions, cover, visibility, and proximity to the enemy; but the front to rear axis of the diamond seldom exceeds 150 yards. The frontage covered is limited by the visibility. (See fig. 47.)

b. Variations from diamond formation. (1) In terrain where movement is restricted to roads or trails, as in

jungle, along mountain trails, or through deep snow, the usual diamond formation must be modified into what is practically a column formation, with men taking advantage of available cover along the edges of the trail. Under such conditions patrols are often reduced in size. Examples of such formations are shown in figures 50, 51, 52, and 53.

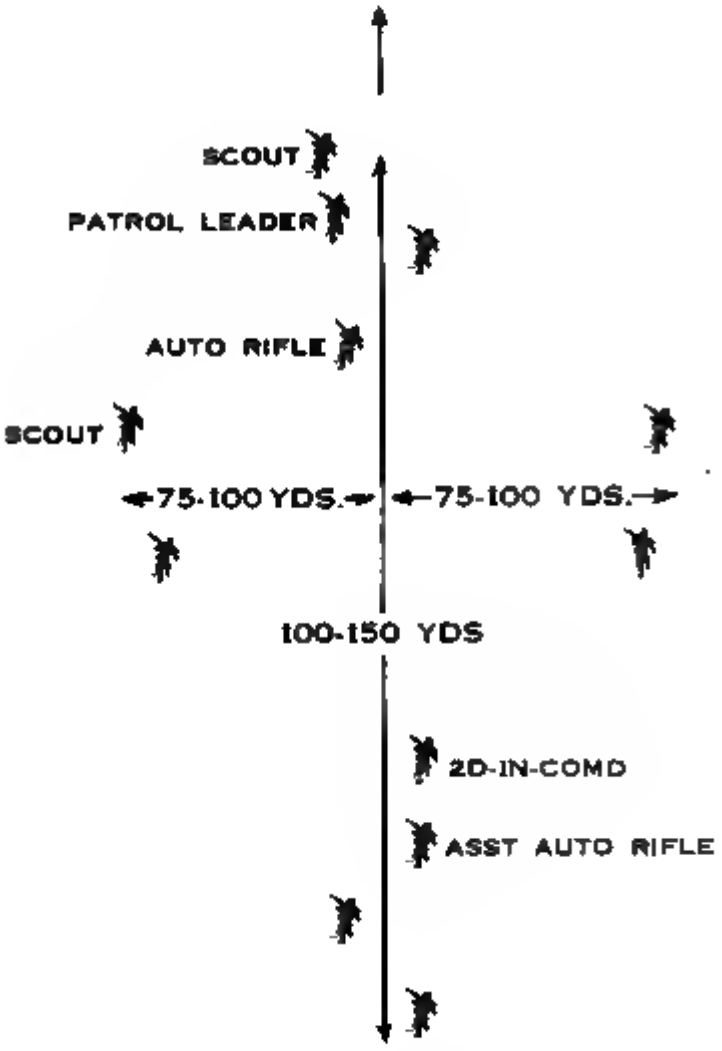

Figure 47. Diamond formation, twelve-man patrol.

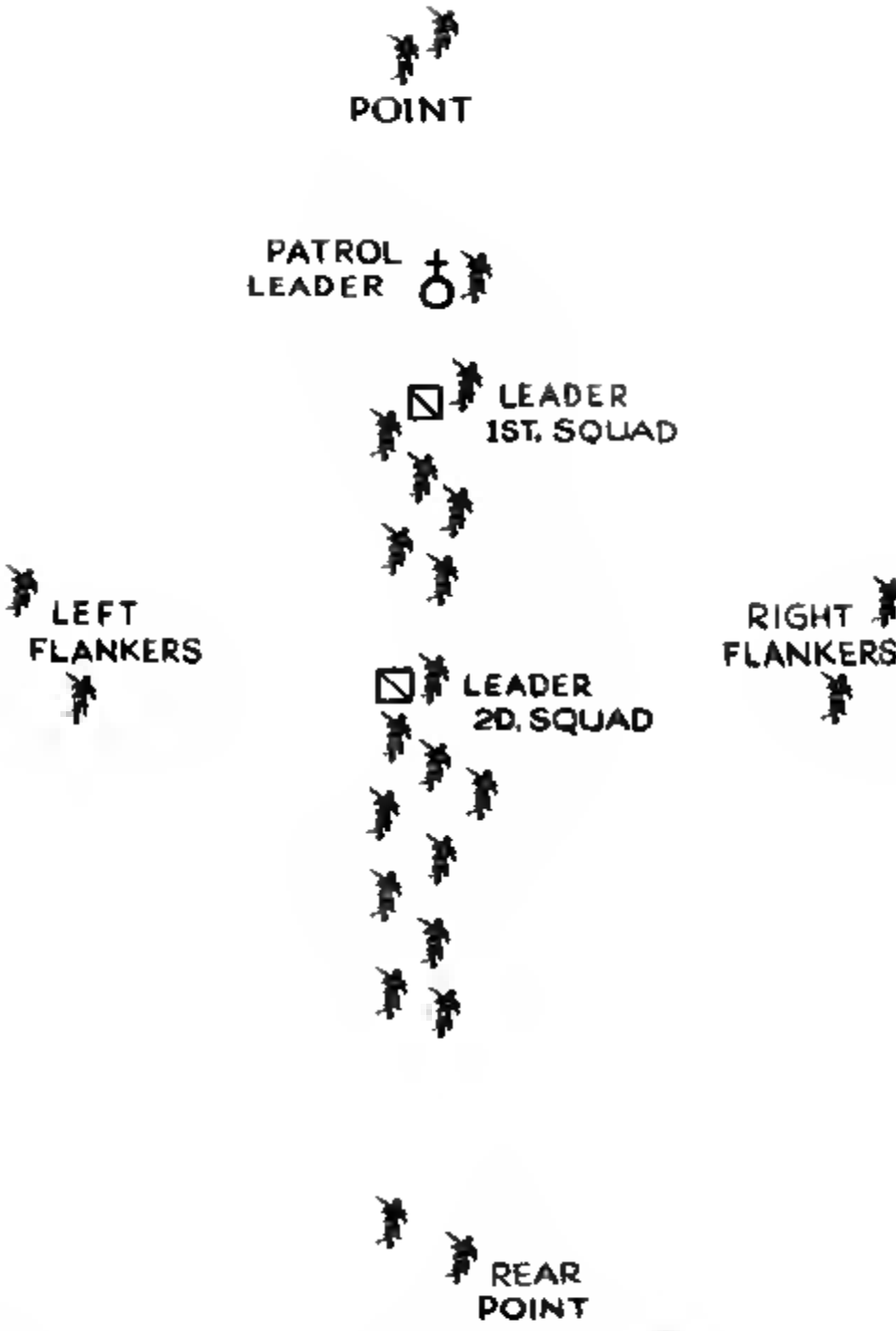

Figure 48. Diamond formation, two-squad patrol.

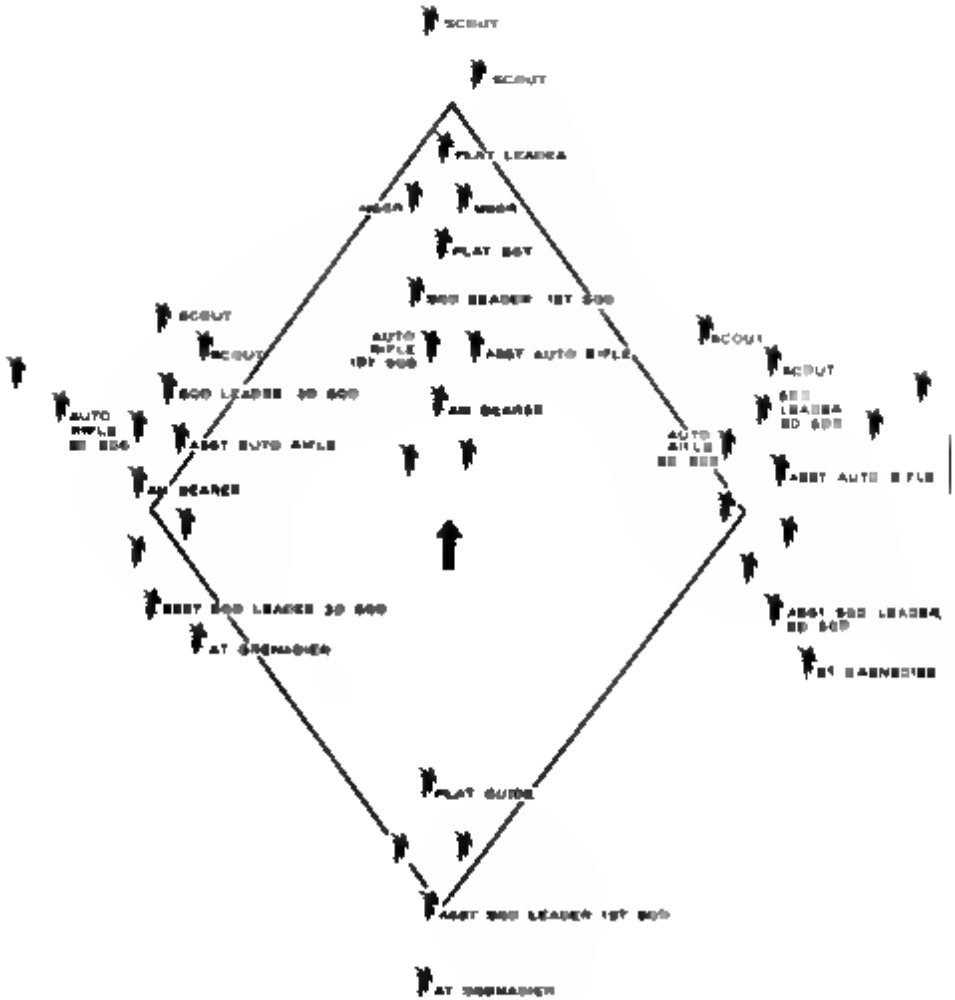

Figure 49. Diomond formation; an entire platoon acting as a patrol.

(2) In open terrain such as deserts, it may be necessary to increase distances and intervals.

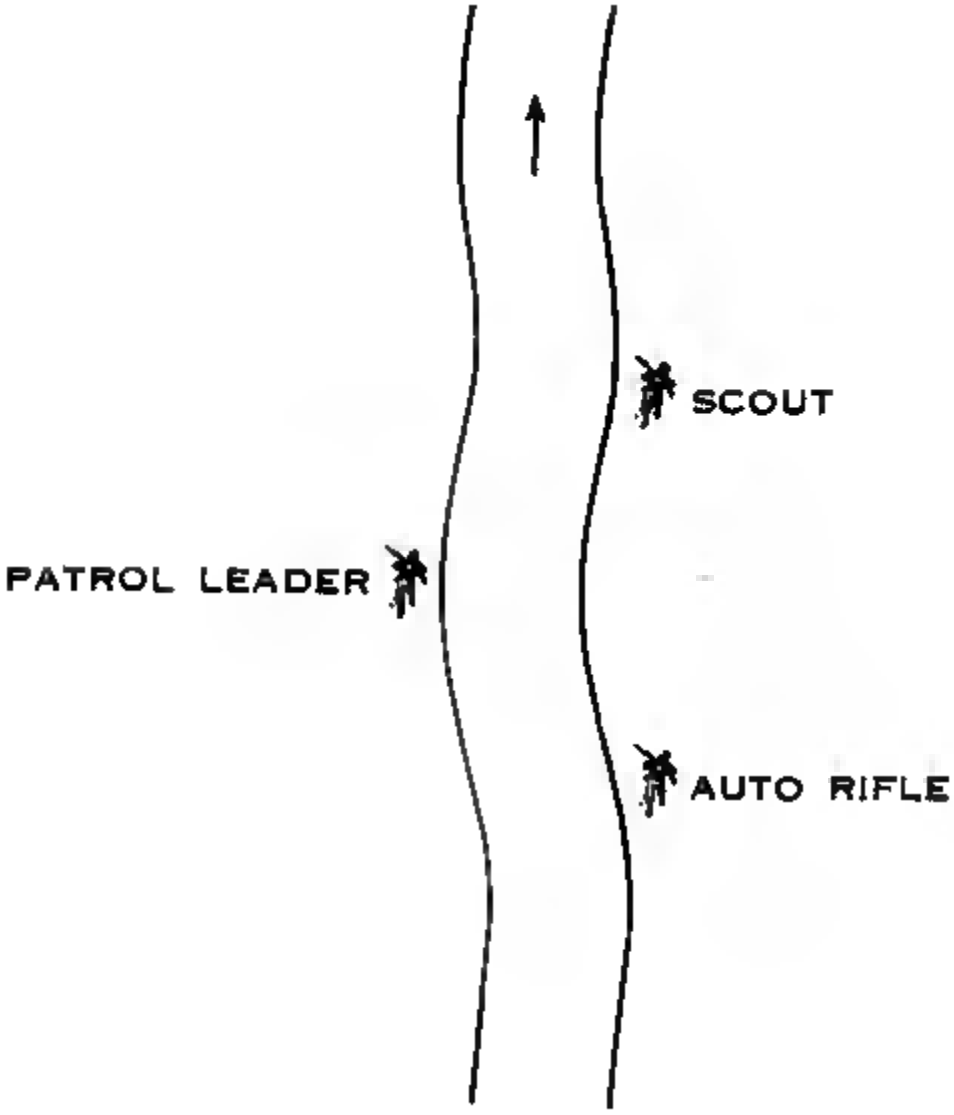

Figure 50. Three-man patrol formation (trail).

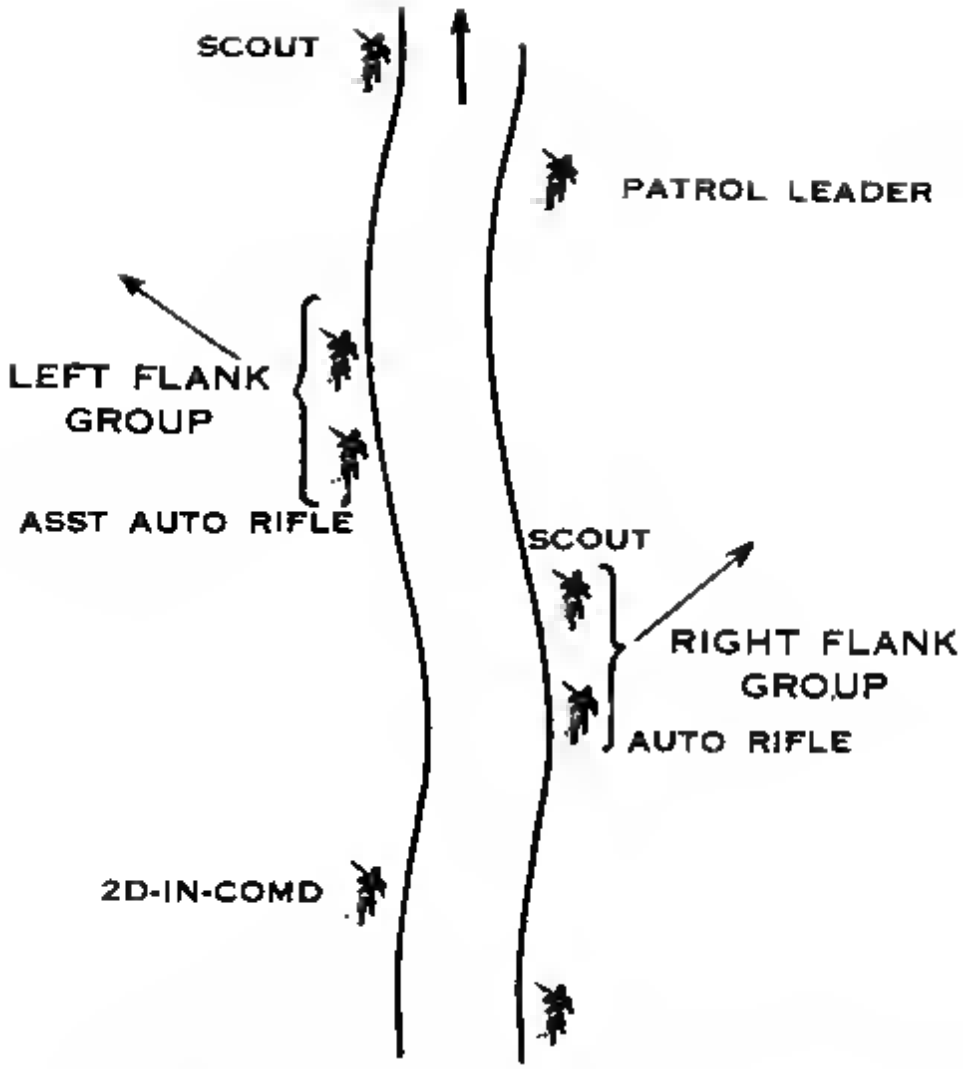

Figure 51. Eight-man patrol formation (trail). During halts flank groups move as indicated to normal diamond formation.

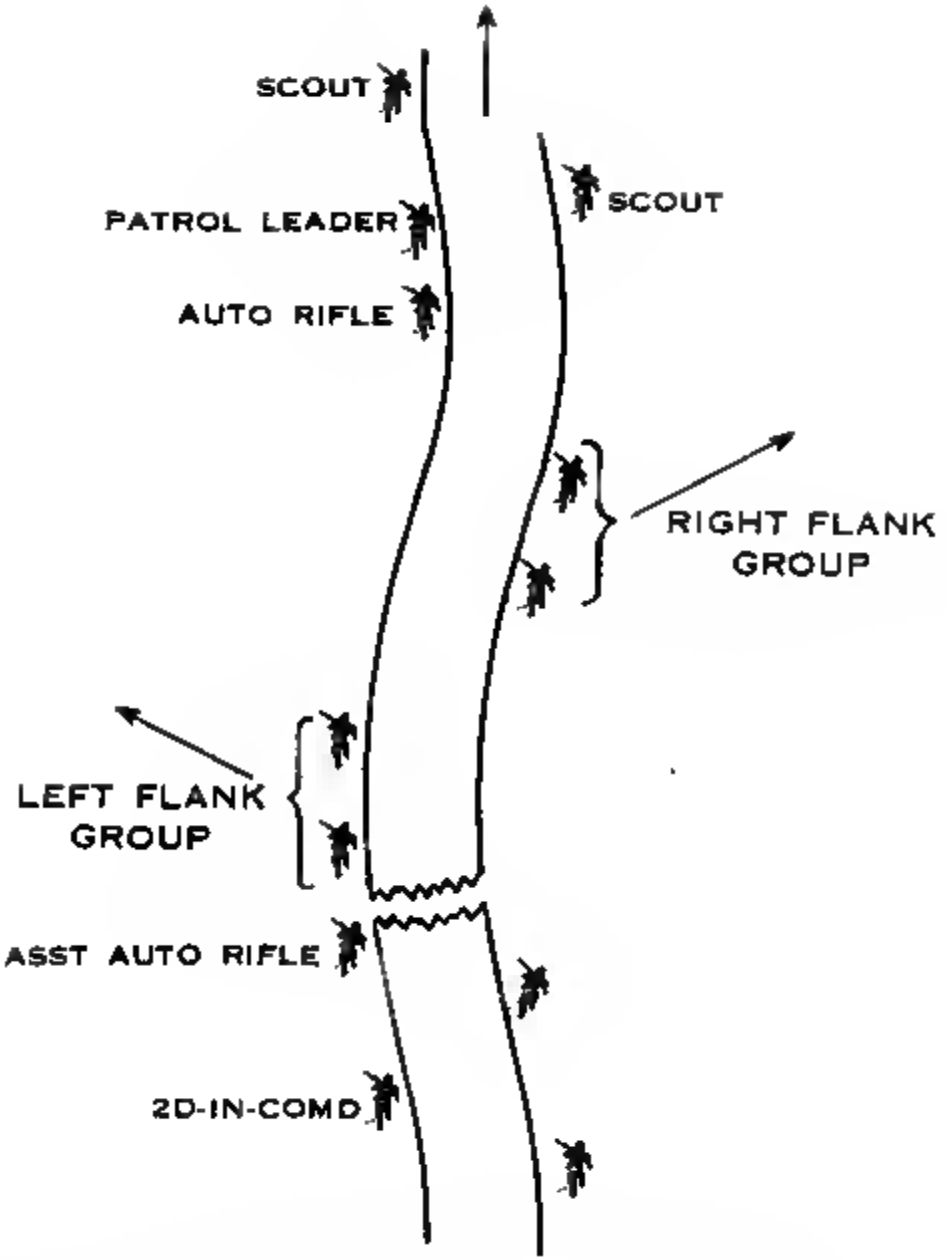

Figure 52. A twelve-man formation (trail). During halts flank groups move as indicated to normal diamond formation.

Figure 53. In deep snow, patrol members follow in trace.

Chapter 11

CONTROL

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102. LEADERS. a. **Responsibilities.** The patrol must be directed, regulated, and controlled at all times.

b. Positions. (1) *Patrol leader.* The leader moves in the position from which he can best control the patrol. Normally, this is at or near the head of the patrol. His position in the formation, however, depends upon the route:

(*a*) If a clearly defined route can be prescribed in advance so that the leading scout can follow it, the leader may be located anywhere within the patrol that his signals can be readily seen by the patrol members. On well defined routes, particularly in the jungle, loss of leaders will be reduced if they are located behind the point.

(*b*) If the route cannot be definitely prescribed, the patrol leader must be in the leading group.

(2) *Second-in-command.* The second-in-command moves in a position from which he can assist the patrol leader or, if necessary, take over the patrol. In a patrol consisting of eight men or less, the second-in-command usually moves in the rear. In larger patrols, he should be near the leader or leading a sub-group. When the leader moves with the point, however, the second-in-command should control the patrol from the middle of the formation.

103. SIGNALS. a. Patrol members must be familiar with all prescribed arm-and-hand signals. (See FM 22–5.) The leader may arrange a few additional signals for special purposes.

b. By day, patrols are usually controlled by arm-and-hand signals and oral orders.

c. By night, patrols are controlled by voice, by touch

or by prearranged sound signals audible for only a short distance. Such signals might be the rustling of paper, snapping the edge of a matchbox with the fingernail, or a bird call. Oral orders and whispering are limited to emergencies. If a cord is used to maintain contact between the patrol members, this may be used to start or to stop the patrol. Two quick pulls might indicate "stop" and three might indicate "move on." In wooded or brush covered terrain, a cord can be used by a small patrol moving in a snakelike column formation. It cannot, however, be used when the patrol is moving in lateral formations.

d. Signals to stop the patrol are usually given by the leading scout, but may be given by any member. The leader is responsible for starting the patrol again. A checkup signal, given by the patrol leader to verify the presence of all men, is answered according to a prearranged plan.

104. ACTIONS WHEN PATROL IS ATTACKED. a. If a patrol is attacked, the man who first observes the enemy calls out the direction of the attack: "front," "right," "left," or "rear." Patrol members face in the direction called to meet the threat. They watch the leader, who indicates the action to be taken. He may order the patrol to remain silent and alert, to rush the enemy, or to break contact and continue the mission.

b. During the fight, patrol members repeat a recognition signal they have agreed upon before starting out on the mission. (See par. 95*b*.)

105. LOSS OF CONTROL. The patrol maintains contact, by messenger or by radio, with the unit which sent it out. If the patrol is dispersed, its members meet at the designated assembly point. Members do not return to their unit on their own initiative; the patrol leader prepares and sends back necessary messages. If only two men arrive at the assembly point, the senior becomes the patrol leader. If only one man arrives at the assembly point and, after a considerable wait, is not joined by any other patrol members, he should return and report to the officer who sent out the patrol, providing it is impossible for him to accomplish even a part of the patrol mission.

Chapter 12

SECURITY

106. GENERAL. a. All-around security—front, flank, rear, and overhead—must be continuous. Each patrol member observes in an assigned direction.

b. The patrol provides its own security by employing a point, flank men and a rear point. These elements are the eyes, ears, and fingers of the leader. They move when and as he directs, maintaining contact with him at all times, except when momentarily obscured by a bush or other terrain features.

c. Terrain and visibility affect the control and security of the patrol and the distances and intervals to be maintained between men and elements. For example, control at night or in heavily wooded terrain requires that individuals keep not more than a few paces apart and that the flank security groups operate within visual or physical contact. Success in night patrolling depends largely on control, maintaining direction, and silent movement. (See par. 19.)

d. Flank groups move in or out in order to investigate possible enemy positions adjacent to the route. On some terrain, they may be unable to leave the designated route, but they are responsible, nevertheless, for *observation* of their asigned flank. In normal terrain, any cover for an enemy up to 100 yards on the flanks must be observed by movement of the flank groups to it.

107. TWO-MAN FLANK GROUP. A two-man flank group operates by having the man nearer the center of the patrol determine his position on the basis of visibility, since he must keep the patrol leader in sight at all times. He remains, however, within a maximum distance of 100

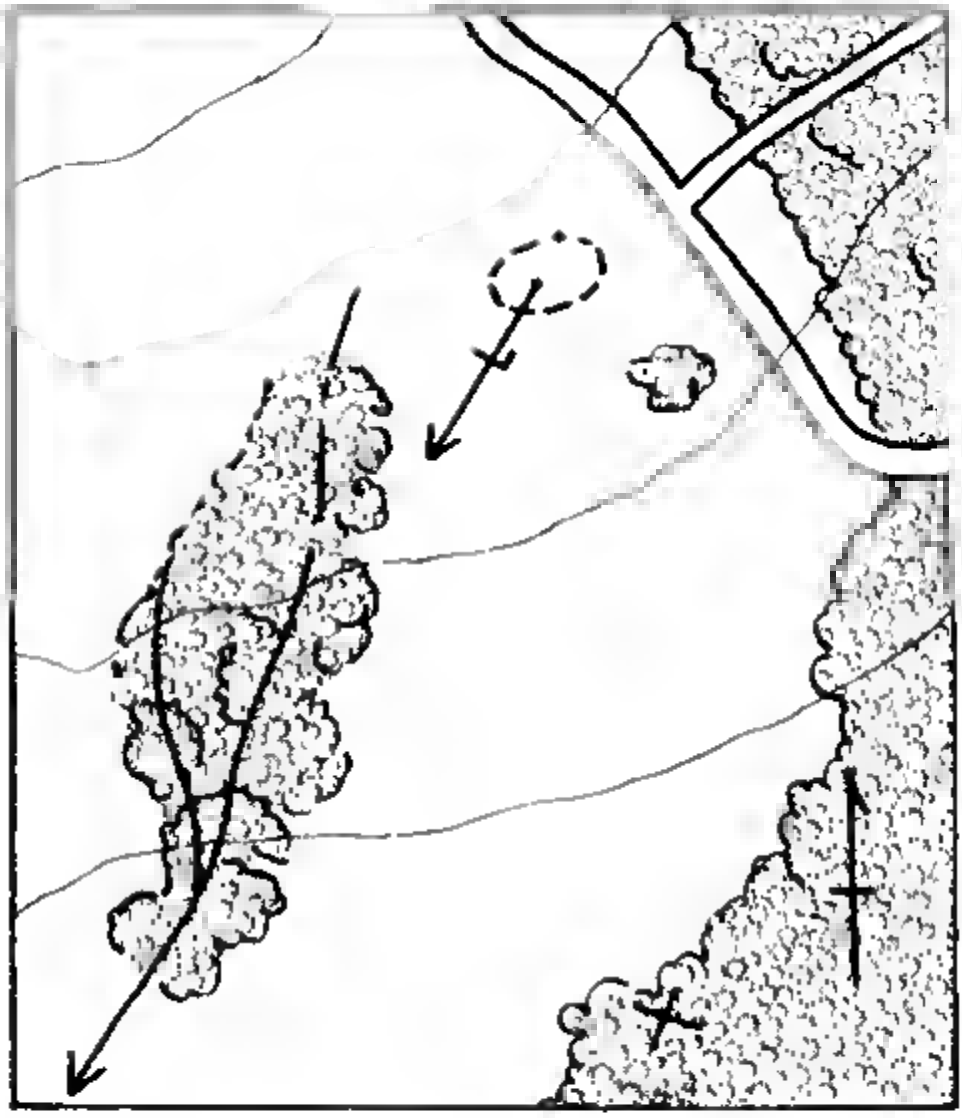

Figure 54. Route taken by two men furnishing flank security for a patrol.

yards. The man farther out remains in sight of the inside man, but normally does not move more than 20 yards away. While investigating the edge of a woods, the inside man moves along the edge, while the outside man penetrates into the woods as far as he can and still see the inside man. In most cases, the two should not be separated by more

than 20 yards. When traversing a ridge, the inside man stays on the side toward the patrol, while the other man investigates the other side. In doing this, however, he must maintain contact with the inside man; at the same time, he must avoid the sky line. (See fig. 54.)

108. OPERATION OF POINTS AND FLANK GUARDS. The rate of movement of the leading group must be slowed down at times to permit flank groups to cover the greater distance they have to travel. The leading man of a point group moves forward rapidly as the patrol approaches a ridge line or thick cover that might harbor enemy troops, in order that the entire patrol will not be endangered. He slows down and permits the remainder of the point to catch up on the down slopes and where cover is thin. Approaches to crests and dangerous areas are made as carefully as possible to avoid being seen by the enemy. The rear group moves rapidly from point to point where observation is good, maintaining a maximum distance of about 100 yards from the center of the patrol. During their movements, front and rear scouts must not lose sight of the inside man of their group, who is in visual contact with the patrol leader. At least one man of all groups maintains a position from which the leader can be seen and his signals recognized. Individual patrol members adapt themselves to the requirements of terrain and visibility within these general limitations.

109. MARCH OUTPOSTS. Every patrol, *without exception and automatically,* must provide for all-around security upon halting. A march outpost is established in the following manner:

a. The point, flankers or flank groups, and rear point halt in place.

b. Each group moves to the flank or to the rear as directed, far enough to permit the patrol members to see over, around, or into any cover or concealment which might hide enemy groups. In no case, however, should the distance exceed 100 yards from the center of the patrol. In high

brush or dense woods, this will not as a rule be over 40 yards.

c. One man of the point or flank group remains where he can see the patrol leader, while the other man (or men) moves not more than 25 yards farther out so that he can observe the area around him but still see the first man.

d. All members of the patrol remain in observation during the halt, and take their former positions when movement is resumed. During short pauses of a minute or less, when the patrol has halted for observation, the patrol members remain in place. When a longer halt is indicated, however, complete all-around security should be set up at once, without command. In normal terrain, if the flank groups are doing their work properly, they should already be in approximately the correct position. In the jungle, the flank groups move to the flank to the usual limits based on visibility.

110. SPECIAL MEASURES FOR DANGEROUS AREAS. Special security measures must be taken by the patrol in crossing streams, cleared areas, bridges, trails, defiles, or other terrain features which might subject the patrol to fire when little cover or concealment is available to it, or when the patrol has only partially crossed the dangerous terrain feature. (See par. 120.)

Chapter 13

MOVEMENT AND HALTS

Section I. MOVEMENT

111. OBJECTIVES. The patrol moves by a selected route to its final objective (destination). Intermediate objectives may be designated to which the patrol advances successively. The progress of a patrol should be governed by the designation of successive objectives. The leader usually makes a reconnaissance at the final objective (or before the advance upon the final objective), while the patrol remains in concealment, usually at the final assembly point.

112. ASSEMBLY POINTS. **a.** A patrol should have one or more designated assembly points, where it can assemble in case it is dispersed, ambushed, or surprised by enemy attack. Members of a dispersed patrol try to reach the designated assembly point with all possible speed in order to facilitate resumption of the mission. An assembly point must be easily recognizable under the conditions prevailing when the patrol is expected to reach it.

b. When the first objective is reached, the patrol is halted and the next objective and next assembly point announced. (Assembly points and intermediate objectives may have been selected by the patrol leader prior to the time the patrol left on its mission.) Assembly points should provide cover and be in the vicinity of the objective just reached. The exact spot should be pointed out on the ground by the patrol leader.

c. Patrol members should be thoroughly familiar with the planned formations and route so that they can rejoin the patrol immediately after an action. This eliminates dangerous waiting periods at assembly points.

113. RETURN TO OWN LINES. a. The nature of the terrain or the actions of the enemy may cause the patrol to return by a different route than originally planned. The patrol must use as much caution and stealth in returning to friendly lines or territory as it did on the outward trip.

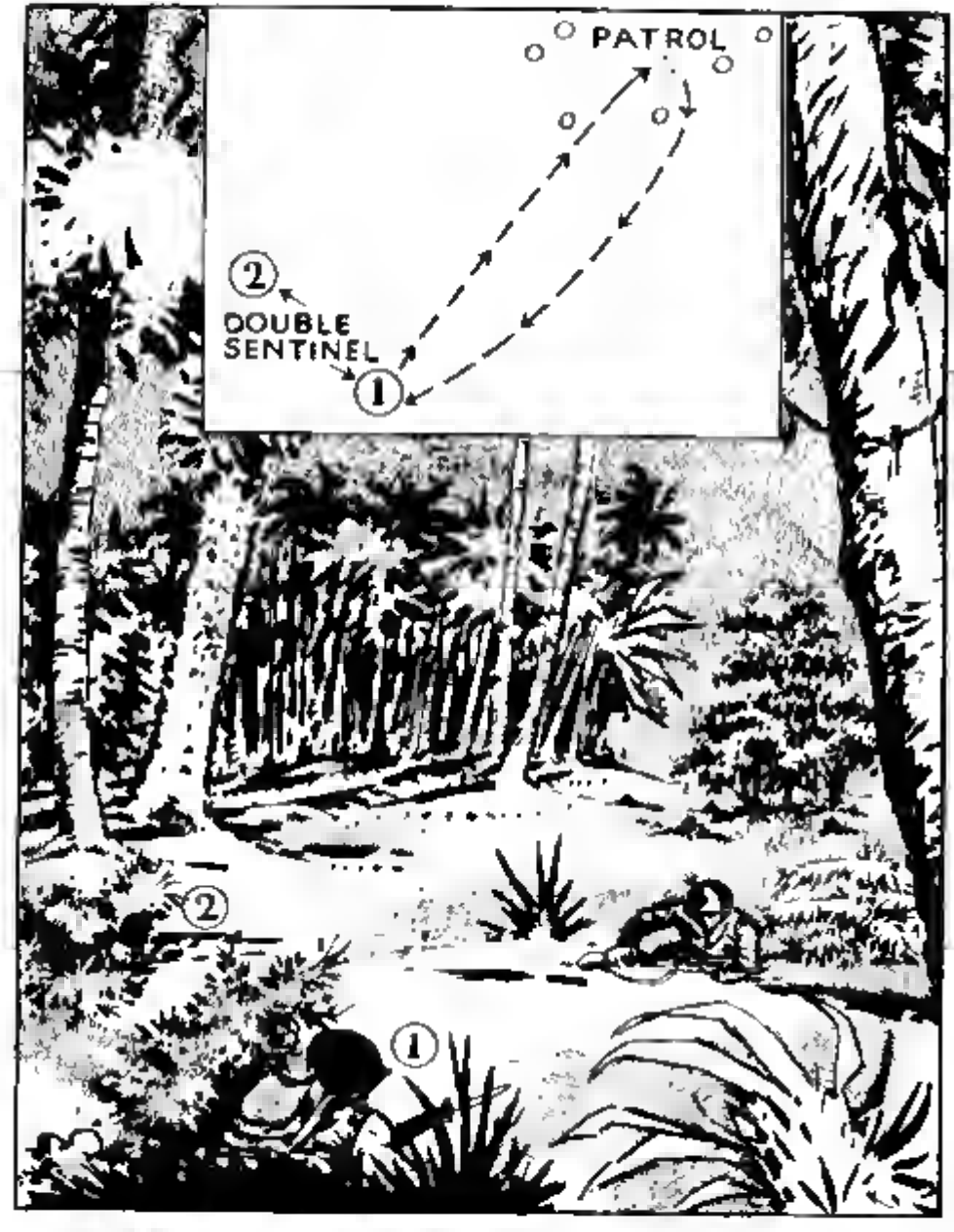

Figure 55. A patrol returning through friendly lines, sends one man forward to make contact with friendly sentinels.

The vicinity of known or suspected hostile positions must be avoided. Those occupied by friendly elements must be approached warily.

b. The patrol should be halted as the friendly outpost or sentinel is approached, and one patrol member sent forward to make the contact. The sentinel and the patrol member challenge and answer in low tones. The latter does not give the password if he does not recognize the sentinel's challenge. Mutual identification or recognition is necessary; neither patrol members nor sentinels should accept the password or reply as positive identification, and then relax. Persons who approach sentinels are regarded as enemies until proven otherwise. (See fig. 55.)

114. MAINTENANCE OF DIRECTION. When possible, a patrol maintains direction by marching on prominent terrain features. For example, it might guide on the edge of a woods, moving just within the woods in the daytime and just outside at night. Ridge lines may also be used as guides. In the daytime, the patrol needs to move only within visual distance of the ridge lines; at night, the patrol moves just below the crest so that it will not be silhouetted against the skyline. The compass should be used as a check when maintaining direction by the use of terrain features. If there are no terrain features on which the patrol can guide, the compass must be used. (See para. 10 and 32.)

115. USE OF TERRAIN. a. The patrol takes advantage of terrain features as it moves to or from its destination. During the day, it moves from one concealed or covered position to another. At night, it moves in the open but avoids the skyline.

b. To complete the mission on time, the patrol will not ordinarily be able to advance slowly by creeping and crawling, or by successive short rushes by individual members of the patrol. On terrain with good cover or concealment generally available, but known to be under enemy observation or fire, open spaces of 300 yards or less may be crossed by creeping and crawling. Except when actually engaged with the enemy, however, patrols do not advance

by short rushes; time does not permit, and in crossing open ground, the longer the patrol is exposed, the more danger it is in. Reliance should be placed on the security groups while the patrol advances at the normal rate. Preferably, a patrol should be halted under cover at the edge of an open space that cannot be avoided, while the point rapidly investigates the cover beyond to ascertain if it is occupied by the enemy. The patrol then resumes its advance at the normal rate.

c. The patrol disturbs the surrounding vegetation as little as possible so as not to attract enemy attention. It avoids usual routes of travel such as roads and trails; however, it may use them to guide on.

116. MOVEMENT AS UNIT. The patrol should move as a unit into and across territory held by the enemy. Exceptionally, if avenues of entrance are few and narrow, the patrol may work forward through these avenues in small groups, or even individually. In this case, they reassemble at the previously designated objective. In passing through hostile outguards, the patrol approaches cautiously and works between the two hostile groups.

117. DEVIATIONS FROM ROUTE. If an important terrain feature is situated too far from the patrol's selected route to permit investigation by a flank group, the leader may change the course of the entire patrol to cover it if the leader considers the investigation necessary. The actual route traveled, while maintaining the general direction desired, weaves back and forth in accordance with the need for flank observation and protection and the use of cover and concealment.

118. PASSING OBSTACLES. a. Obstacles are frequently covered by enemy fire with resultant danger of ambush. Antipersonnel mines, land mines, and booby traps can be expected on or near all enemy prepared obstacles. Preliminary reconnaissance to the front and flanks should first be established to effect the safe passage of the remainder

of the patrol. (See par. 25.)

b. Upon encountering obstacles such as wire or mine fields, the patrol protects the leader while he makes a reconnaissance. He investigates friendly as well as hostile wire and mine fields. He does not use gaps already made in hostile wire because they are apt to be covered by enemy automatic fire. He cuts new lanes or selects points where patrol members can crawl under or walk over the wire.

c. The patrol passes the obstacle as quickly and quietly as possible.

119. PASSING DEFILE. When moving across terrain, gullies, ravines, defiles, and narrow valleys should if possible, be avoided as such terrain features lend themselves to ambush. The patrol should move along the heights on one or both sides of the ravine or defile. If necessary to pass through the cut, the patrol should move in a staggered formation with flankers moving along the heights on either side. If the distance to be traversed is very short, one or two scouts should move through the cut ahead of the patrol and signal if all is clear. If the distance is too great or if observation is limited, one or two scouts should move forward by bounds some 100 to 150 yards ahead of the patrol.

120. CROSSING STREAM. a. Reconnaissance. When a patrol reaches a stream, it is halted under cover while the stream banks are reconnoitered. The men move in pairs for short distances upstream and down, looking for a bridge or ford and watching carefully for signs of the enemy on the other side. The patrol leader makes his reconnaissance and selects a point of crossing. This point should be easily protected, not subject to ambush by the enemy, and should facilitate reorganization of the patrol on the opposite bank.

b. Crossing. Security elements are sent up and down stream to protect the patrol crossing. One man crosses the stream first, swimming if necessary. The remainder of the patrol remains in concealed positions, ready to protect him by fire. The scout reconnoiters the other side and, if it is clear, signals back to the patrol. The patrol members

cross the stream one at a time, each taking a position immediately from which he can protect the crossing of the others, or the reforming of the patrol. The flank security detachments and the second-in-command are the last to cross the stream. The formation is resumed when the entire patrol has crossed. Large patrols may cross in small groups.

c. **Points to be noted about stream.** The patrol leader makes notes of the following points about the stream, to be included in his report to the higher commander.

(1) Depth, width, and current of stream.

(2) Slope of bank, whether wooded or open, positions from which covering fire to protect a crossing can be delivered.

(3) Size, height, and construction of bridges.

(4) Depth of fords, type of bottom (whether rocky, muddy, or sandy).

121. PASSING THROUGH WOODS. a. Wooded terrain offers excellent concealment to a patrol and therefore should be used as a daylight route where possible. However, the excellent opportunities for ambush by the enemy, and the limitations on observation will require suitable formations with contracted intervals and distances. (See par. 100.) Before the patrol enters the woods, its scouts or point precede it and reconnoiter a short distance into the wooded area. Flank security should never be neglected even though it will be closer to the patrol than in more open terrain. All members of the patrol must be alert for snipers. (See par. 149.)

b. Trails and game paths are avoided as being probable places of ambush. Clearings are by-passed where possible. Wide trails or gaps are crossed at a run, the scouts going first to reconnoiter the far side, and then the rest of the patrol following.

c. Upon reaching the far side of the woods, the patrol is halted by its point or scouts who carefully examine the area to the front for enemy. The leader moves to a vantage point on the forward edge of the woods and reconnoiters for the best route forward. He will frequently find it desirable to move the patrol to the right or left while it is

still concealed by the woods in order to continue the movement with maximum cover and concealment.

122. TRAIL JUNCTIONS AND CROSSINGS. When a trail which must be used divides or is crossed by another trail, the leading scout halts the patrol. The leader orders the forks or cross trails to be reconnoitered for some distance beyond the junction before he orders the patrol to continue on its mission.

123. CROSSING ROAD. Before a patrol crosses a road, the leader has it reconnoitered for some distance to either flank. The leading scouts reconnoiter the ground on the other side of the road. When these elements report the absence of any enemy, the patrol crosses the road quickly in one rush.

124. PASSING THROUGH VILLAGE. A village will be detoured usually by a patrol unless the mission demands otherwise. A village that must be entered should always be reconnoitered prior to this entrance.

a. When a patrol passes through a village, it should move in a staggered formation, part of the patrol being on each side of the street. Leading patrol members should be covered by those who follow. Each member watches the windows, buildings and alleys on the opposite side of the street. Upon arriving at an intersection, the point should halt the patrol and observe but not proceed down the side streets. If all is clear, the point should then cross the intersection rapidly; otherwise, the patrol leader should move to the point and decide on the action to be taken.

b. The patrol leader should, if it does not interfere with his mission, note the following points about the village:

(1) Size and billeting capacity.

(2) Food and water supply.

(3) Attitude of inhabitants.

(4) Type and number of roads.

c. The actions of the inhabitants of a village may indicate the presence or absence of the enemy. (See par. 150.)

125. AVOIDING AMBUSH. **a.** A patrol is always subject to being ambushed, whether moving or at a halt. It is alert to the possibility at all times, but particularly when moving through defiles, canalized between two obstacles, or passing through a dense growth, deep woods, or jungle.

b. The security elements of the patrol should be far enough away to prevent the enemy from aiming fire on all members of the patrol at the same time.

c. If patrols are going over the same terrain at more or less regular intervals, different routes should be used and the time of departure and return varied.

d. If the patrol is ambushed, the leader at once decides on immediate steps to extricate it. The action must be definite and determined, with the entire patrol striking in the most favorable direction.

Section II. HALTS

126. DURATION. Unless they are essential to the mission, a patrol avoids long halts. When daytime halts must be made, the patrol selects a position that affords concealment and good observation, facilitates defense, and affords one or more routes for continuing the mission. At night, the patrol halts on low ground in order that anyone approaching will be silhouetted against the skyline.

127. NECESSITY. **a.** It will be frequently necessary for the patrol to halt because observation is limited by darkness, fog, rain, snow or smoke; or because the patrol is under direct enemy observation.

b. While patrols do not halt regularly to rest as marching foot troops do, they may make occasional short halts to enable patrol members to rest, relieve themselves, or adjust equipment. On a prolonged mission, an occasional halt must be made to permit sleep. This halt need not be at night. (See par. 109.)

c. When required, the members of a patrol can eat while marching, but it is preferable to halt and allow the men to eat while resting.

d. A patrol may halt frequently to permit detailed terrain observation by its members, or to cover the advance of one or two men who go forward to make close reconnaissance of dangerous areas.

Chapter 14

INFORMATION, CAPTURED DOCUMENTS, PRISONERS AND REPORTS

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128. INFORMATION REPORTED. The patrol leader requires the members of his patrol to signal or report to him immediately any unusual or suspicious thing that they observe or hear. He records all important information. If the patrol leader becomes a casualty, his second-in-command takes over the record and continues it.

129. CAPTURED DOCUMENTS. a. Searching for enemy documents. The patrol searches enemy personnel and installations for documents such as maps, messages, orders, codes, and diaries.

b. Disposition. (1) Documents should be marked as to time and place of capture. Documents found on enemy dead should be marked with the soldier's name, organization or branch, and the place where he was found.

(2) All enemy documents captured by the patrol are marked and turned in to the unit commander. This is usually done by the patrol leader when he makes his report.

(3) If the patrol has not accomplished its mission and finds documents which the leader believes contain vital information, he sends them immediately to the unit commander. If possible, he sends this information by two messengers who use different routes; one carries the documents while the other carries a report containing a gist of the material in the documents. Both messengers must be able to transmit the information orally in case they have to destroy the documents or the report to prevent enemy interception.

(4) Captured codes, ciphers, and cryptographic material are transmitted to headquarters by the most rapid means available.

130. SENDING BACK INFORMATION. a. Messages. (1) The patrol leader decides whether information should be sent back immediately by messenger or kept until the patrol returns. (See par. 42.)

(2) If circumstances require the patrol to do other than the unit commander expects, the message should conclude by stating what the patrol intends to do.

b. Radio. Some patrols may carry a radio for sending back information; it must be used sparingly. A prearranged code, agreed upon before the patrol starts on its mission, may be used, but only for one action. The patrol leader takes every precaution to insure that codes and records are not captured by the enemy. In making the detailed reconnaissance near or within the enemy lines, the radio should be concealed well to the rear. After the patrol has sent a message by radio, it should leave the vicinity immediately, as the radio will probably be detected by enemy locating devices.

131. PRISONERS. a. Capturing. A patrol does not take prisoners unless required to by its mission. Prisoners must be promptly disarmed, segregated and searched before they have time to throw away or destroy anything of value.

b. Segregating. Prisoners should be separated into three groups: officers, noncommissioned officers, and privates.

c. Searching. The immediate search is especially important when officers are captured. Prisoners who may conceal grenades or other weapons in loin cloths should be completely stripped. (See FM 30–15.)

(1) Prisoners are permitted to retain clothing, insignia, decorations, identification cards or tags, personal effects, helmets, and gas masks. They will not be permitted to retain money, watches, or any other article which may be used to facilitate escape. Money is taken from them only on the authority of an officer. Temporary possession is taken of such personal effects as pictures, papers, and maps. Each prisoner receives a signed receipt for personal items taken from him.

(2) The search by the patrol is quick yet thorough, to

make sure that no weapons, documents, or papers are overlooked.

(3) Captured materiel must be put out of reach or recapture. New or strange weapons and equipment, should be rushed to the unit S–2.

(4) All documents and other effects are turned over to guards who conduct the prisoners to the rear. At times the patrol may have to furnish these guards. Additional personnel should be taken as patrol members if this duty can be anticipated.

d. Returning. A patrol does not attempt to question prisoners. Prisoners are not given cigarettes by the patrol, nor are they permitted to talk to each other or to their guard. They are not fed except when they are held by the patrol more than one day. Guards in charge of prisoners prevent any conversation between them. Guards instruct prisoners to enable them to understand the significance of the word "Halt," and warn them that anyone attempting to escape may be shot. Upon delivery of the prisoners and all personal effects to appropriate authorities the commander of the escort, when practical, obtains a receipt. A captured officer or noncommissioned officer should never be trusted to control prisoner movements. Prisoners can be required to carry their wounded as well as ours.

132. PATROL REPORT. a. When the patrol returns, the leader makes a complete report to the unit commander or the officer who sent him on the mission. Unless the situation is too mobile to permit, his report should be written. Oral or written, the report should cover the following points:

(1) Designation and size of the patrol.

(2) Mission.

(3) Time of departure and routes taken.

(4) Character of the terrain covered (dry, swampy, can vehicles cross)?

(5) *What* was observed (number, composition, equipment, and attitude of the enemy)?

(6) Where was the enemy observed (doing what; direc-

tion of movement, if any, with exact location; any shift in dispositions)?

(7) *When* was the enemy observed?

(8) Location and condition of enemy defenses.

(9) Results of any encounters with the enemy.

(10) Return route and time of return.

(11) Condition of the patrol, including disposition of any dead or wounded.

(12) Conclusions (including to what extent the mission was accomplished).

b. In addition, the patrol leader should be able to answer the following type of questions which may be asked by the higher commander or S–2:

(1) Show on this map just where you went.

(2) What are the routes of approach to our position?

(3) Are there any forward assembly positions close to our lines from which an assault may be launched?

(4) What are the possibilities of the use of enemy armor?

(5) Is our security effective?

(6) Are there any particular vulnerabilities to our position that the S–3 might want to know of?

c. Whenever possible, the patrol leader turns in an overlay or sketch with his report. (Sometimes, his report may be in the form of an overlay with the 12 points listed above accurately plotted and explanatory marginal notes added.) An overlay should show pertinent items, that can best be graphically depicted. Such items might be the routes covered, areas investigated, the position of enemy weapons and troop dispositions, nature of the ground, and the location of enemy mine fields. Information in overlay form is readily transferred to situation maps.

Chapter 15

RECONNAISSANCE PATROLS

133. MISSIONS. Reconnaissance patrols have a great variety of missions, but their primary one is to secure and to report information in time for it to be of value to the commander who desires it. The missions of reconnaissance patrols include obtaining information of the location and characteristics of friendly or hostile positions and installations, routes, stream crossings, obstacles, terrain features, and the nature of the terrain. Reconnaissance patrols may also be used to maintain contact with the enemy.

134. ENGAGING IN COMBAT. Reconnaissance patrols engage in fire fights only when necessary to accomplish their mission or for protection. In general, they avoid combat and accomplish their missions by stealth. They do not usually maintain contact with the unit which sent them out.

135. SIZE OF PATROL. a. A reconnaissance patrol should be kept to the minimum number of men required to accomplish the mission. (See par. 86.) Two or three men are often sufficient for a reconnaissance patrol. A mission requiring a patrol to remain away from its unit for a considerable period of time, or one requiring a patrol to send back information by messengers, increases the size of the patrol. Reconnaissance patrols seldom exceed a platoon in strength.

b. Intelligence personnel, interpreters, and other specialists such as radio operators, mine probers, or pioneers are assigned to a patrol if the particular mission demands.

136. RECONNAISSANCE OF FRIENDLY WIRE. A reconnaissance patrol may be given the mission of reconnoitering friendly delensive wire obstacles to determine where repairs are needed. Prior to departure, the patrol leader ascertains the location ol friendly sentinels and antipersonnel mines or signal warning devices located in or near the wire. The bulk of the patrol works along the outside ol the wire. Security elements are placed on both flanks as well as in the direction of the enemy. Two men work along the inside ol the wire; one man marks with stakes or tape any gaps lound while the other precedes and warns friendly sentinels of the patrol's approach.

137. RECONNAISSANCE OF HOSTILE WIRE. A patrol with the mission of investigating hostile wire employs a formation providing all-around security and takes precautions against being caught in enemy final protective fires. At least one man should be placed on the enemy side of the wire. The leader and one man inspect each gap lound in the enemy wire and establish its location by taking compass readings to prominent objects or by other reference to prominent terrain features, preferably in the rear of friendly positions.

138. RECONNAISSANCE OF GASSED AREA. A patrol with the mission of investigating a gassed area reconnoiters the area and marks its boundaries. Patrol members wear protective clothing and gas masks. The patrol leader's report should include:

a. Extent of area.
b. Type of gas used.
c. Type of vegetation.
d. Method used to mark area. A sketch of the gassed area should accompany the report.

139. RECONNAISSANCE OF MINE FIELDS. Plans of attack may depend upon information of the location and extent of enemy mine fields. Specially trained reconnaissance patrols are usually assigned to locate them. Several

patrols, each consisting of a noncommissioned officer and four men, may reconnoiter several points at the same time. For detailed information on reconnaissance and reporting of enemy mine fields, see FM 5–30.

Chapter 16

COMBAT PATROLS

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140. MISSIONS. Combat patrols are assigned missions which will likely require them to eagage actively in combat. Missions of capturiag prisoaers, destroying or capturing enemy msteriel by raidiag or iafiltratiag enemy lines, clearing enemy groups from aa area coatrolled by friendly troops, preveating enemy recoaaaissance units from discovering the dispositioa of frieadly troops and destroying enemy iafiltrating groups which might execute harassing or destructive missions would probably all require some fighting.

a. Some of the maay types of offensive combat patrols are: screening pstrols, raidiag patrols, iafiltrating patrols, assault patrols, demonstratioa patrols, mopping-up patrols.

b. Missioas of a defensive aature may be sssigned combat patrols. Such missions iaclude: preventing the enemy from occupying a particular piece of commanding ground which will permit observation of, or the delivery of effective small-arms fire into, friendly troops; attackiag enemy airborne troops, searching for enemy snipers, protecting routes of supply and commuaicatioa; aad protecting minefields.

c. Security missioas such as protecting the open flanks of deployed troops, proceediag or followiag troops on the march, or maiataiaiag coatact with other frieadly units may be sssigned combat patrols. (See par. 85.)

141. IN DEFENSIVE SITUATIONS. In defensive situations, combat patrols operate in froat of and between friendly outposts and defended localities. At aight, where friendly mine fields are located to protect the front or flanks of a defensive positioa, they operate continuously.

Small groups patrol within, in front of, and on the flanks of the mine field. Patrols operating within a mine field follow passageways; if a patrol must leave the path, the patrol leader determines the location of antipersonnel mines. During retrograde movements, combat patrols assist in screening the withdrawal of the main body, and later coordinate their movements with the rear guard.

142. ACTION AGAINST AIRBORNE TROOPS. Enemy parachutists or airborne troops who land behind our lines are difficult to dislodge if they have time in which to organize. Parachutists or airborne groups increase their ability to resist the defender's attacks by landing in strength with many automatic weapons and adequate ammunition. They are reinforced and resupplied by air. For the first minute, they are nearly helpless due to difficulties with parachutes or rough landings. For the first two minutes, they are unable to withstand an attack because they have not secured and unpacked all their equipment. Within five minutes, however, they may be completely equipped, even though not fully organized for effective action. Patrols assigned mopping-up missions attempt to arrive at the area while the enemy parachutists, gliders, or planes transporting the troops are landing. Trained combat patrols, held in reserve for this purpose, make quick action possible. They open fire when the enemy descends within effective slant range and continue firing to destroy enemy individuals and groups who succeed in landing before they can reach their weapons, organize and effect any concerted action. Enemy groups who escape destruction are searched out unhesitatingly. Each patrol details members to collect or destroy enemy equipment. Equipment which cannot be destroyed is covered by fire, and any enemy who seeks to recover it is killed.

143. IN OFFENSIVE SITUATIONS. In the offensive, combat patrols operate to protect the flanks of advancing units, to maintain contact with adjacent units, to destroy isolated points of enemy resistance, and to mop up enemy groups by-passed in the attack. By night, combat patrols in-

filtrate the enemy lines upon missions of demolition and harassment. The destruction of crew-served weapons holding up the advance may be such a mission. If the enemy withdraws, combat patrols are pushed forward to maintain contact and harass his retreat.

144. RAIDS. A successful raid requires detailed planning. A combat patrol engaged in raiding is usually commanded by an officer, who must anticipate probable situations and decide upon definite courses of action to meet them. (See FM 7–10.) *Rehearsals are imperative.* The safety of a raiding patrol depends upon all-around security in the form of a close-in, perimeter defense during an engagement or the seizure of an objective.

a. Missions. A combat patrol engaged in raiding accomplishes such missions as gaining information, destroying an enemy outpost, or seizing prisoners from an observation post or small defended area.

b. Fire support. Where supporting fires assist the action of the patrol, the higher commander or the patrol leader coordinates these fires.

c. Strength. The patrol should be strong enough not only to accomplish its mission, but to take prisoners and to carry out its own wounded. This requires enough men to guard the prisoners and to take them back, without decreasing the effectiveness of the patrol.

d. Operations. (1) *Formation.* When the patrol is about to attack, its formation may be a line of sub-unit columns with some support to the rear. Silence and speed are essential.

(2) *Leader's plan.* The leader's plan usually includes the encirclement of the hostile position, either physically or by fire, to isolate it during the assault.

(3) *Enemy automatic weapons.* Enemy automatic weapons offer the greatest threat to successful action against an objective. Flanking groups should engage such weapons while the remainder of the patrol moves on the objective.

(4) *Final assault.* The final simultaneous assault against hostile supporting weapons and the objective enemy group develops when the patrol elements are close enough to use grenades. When the grenades explode in the enemy position,

Figure 56. Approaching an isolated building.

assigned members of the patrol immediately rush the position with bayonets. Other men remain in position covering the assault with fire. The patrol overwhelms the enemy while he is in a state of confusion, and quickly withdraws before the position can be reinforced.

(5) *Clearing dugout.* If the point to be cleared is a dugout, the assaulting elements make certain that the grenades have been effective. Against some types of dugouts, particularly those with offset entrances, a grenade thrown into the doorway is not effective, and a pole charge may be necessary.

(6) *Clearing isolated building.* When clearing an isolated building, two or three men covered by fire from the remainder of the patrol advance until they can throw or fire grenades into the building. (See fig. 56.)

e. **Security.** The patrol leader plans in advance for the posting of security elements to the front and flanks when the objective is reached. The main body signals these elements when the withdrawal from the objective is to start, and when the patrol re-enters friendly lines. A condition of low visibility is desirable for direct assault actions.

145. AMBUSH. A combat patrol may be given the mission of ambushing an enemy sentinel, patrol, carrying party, supply point, observation post or command post.

a. **Requirements.** (1) *Favorable terrain.* An area should be selected where the enemy will be canalized between two obstacles and his opportunities to attack or to escape limited. Suitable areas for ambushing include defiles, small clearings, trail bends, along steep grades, and those having dense undergrowth or permitting observation from concealed positions. Obstacles may be constructed to impede the group to be ambushed. Such obstacles include felled trees, wire, land mines, or booby traps.

(2) *Early planning.* A reconnaissance should be made of the area selected for the ambush and plans prepared for using it. Patrol members should be assigned specific tasks in order to minimize confusion.

(3) *Favorable fields of fire.* Favorable fields of fire for the patrol doing the ambushing should include stretches of road, trail, or open ground of at least 100 yards for machine guns, and 15 yards for rifle fire and grenades.

(4) *Cover and concealment.* The attacking force should have maximum cover and concealment, not only for the firing positions but for the routes of withdrawal. The enemy should be in an area offering as little protection from fire as possible.

(5) *Secret occupation of ambush position.* The patrol's position must be occupied secretly, previous to the anticipated time of the action. The surrounding area must be searched, since the enemy may have anticipated the ambush and sent patrols ahead to defend dangerous areas.

(6) *Suitable assembly area.* An easily located assembly area must be selected and made known to all patrol members. Routes of withdrawal to the assembly area should

be selected and reconnoitered by all members. If a pursuit by the enemy is likely, sub-ambushes may be prepared along these routes.

(7) *Covering parties.* If machine guns or mortars are to be used in the ambush, covering parties should be organized to protect them and cover their withdrawal to the assembly area.

(8) *Local security.* Security must be posted. Security elements do not usually participate in the initial attack, but protect the rear and flanks and cover the withdrawal.

b. Types of ambush. (1) The most successful type of ambush requires that the attackers be disposed and concealed in such a manner that the enemy will unknowingly be surrounded.

(2) The usual method of ambush is for the attackers to dispose themselves along a trail or route that the enemy will travel over. The attackers permit the enemy to pass by the center of their force so that the attack can be made on the enemy's rear. One or two men should be posted well forward along the route to prevent any enemy from escaping. The attack should be launched simultaneously on a prearranged signal, and each of the enemy attacked from the rear, if possible. If prisoners are to be taken, they should be stunned first by a blow on the head, the back of the neck, or the pit of the stomach.

(3) A sentinel or small outpost may be captured by detailing one man to move to the enemy's side, away from the direction of the attack, and make a noise or otherwise attract the enemy's attention. The signal is then given and the enemy is jumped from the rear.

(4) An effective method of disrupting enemy communication is for the ambushing patrol to cut or short enemy communication wire. The patrol then disposes itself and attacks the enemy line crew when it arrives to repair the damage. Since the line crew may be protected by riflemen, the attackers must be careful to engage the entire party. This procedure may be repeated with success if the patrol permits the damaged wire to be repaired before launching the attack.

(5) Definitely located observation posts may be am-

bushed if they are accessible and poorly guarded. They are frequently protected by sentinels some distance away, therefore, the attackers must kill or capture these men at the same instant the observation post is rushed.

(6) The destruction of a command post seriously impairs the battle efficiency of a unit. Command posts are normally near reserve forces which contribute to their defense. For that reason, the attackers penetrate the security elements and simultaneously attack the command personnel. By the time the enemy has recovered from the initial confusion caused by the attack, the ambushing patrol must have made its escape.

(7) Vehicles and foot personnel moving on well established communication routes can sometimes be captured by

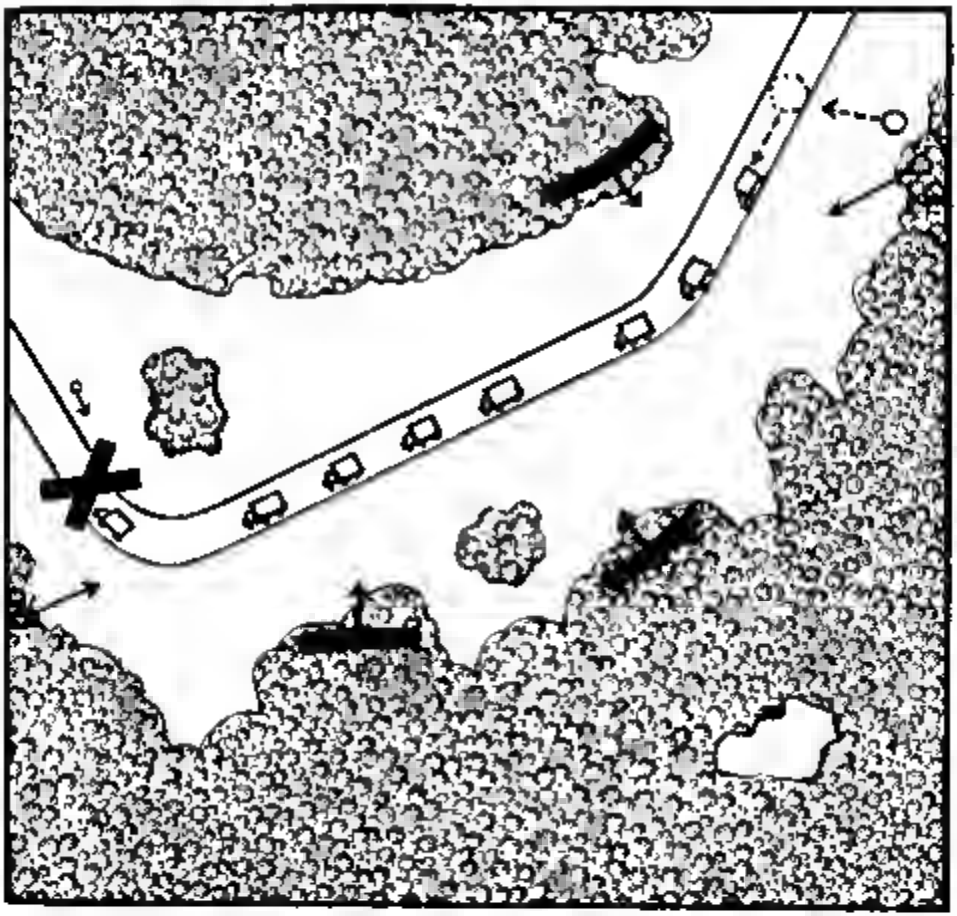

Figure 57. An ambush along a road.

altering or moving directional signs so as to divert the enemy into an area where it can be more readily attacked and from which it cannot easily escape. This can best be accomplished at an obstacle such as a stream or gully which forces the enemy to stop or slow down in defiles.

(8) On little-traveled roads, an obstacle placed in a defile, woods, on a bridge or on a steep up-grade, can effectively be used to force vehicles to halt and thus render the occupants vulnerable to attack. A simple obstacle can be quickly contsructed by felling a tree across the road. (See FM 5–30.) Such an obstacle should be erected just beyond a turn so as to conceal it from the driver until the last possible moment. (See fig. 57.) If the destruction of the vehicle is immaterial, antitank mines may be emplaced and the occupants of the wrecked vehicle killed or captured while still dazed by the explosion. (See FM 5–30.)

c. Ambush at night. An ambush should not be attempted at night unless the attacking force is twice as large as that of the defenders. If the mission requires secrecy, the enemy should be engaged only with silent weapons, such as bayonets, knives, hatchets, blackjacks, and brass knuckles. Men with automatic rifles are placed near the edge of the ambush to cover the flanks and rear of the patrol. Automatic rifles may also be used to cover the withdrawal. Grenades are rarely used because of the danger to friend as well as foe. (See fig. 58.)

146. INFILTRATION. a. Missions. Combat patrols must frequently infiltrate the enemy lines, particularly when weak spots have been discovered in the enemy disposition. The mission of such a patrol might be any of the following:

(1) Demoralizing hostile troops (for example, dispatching false orders over tapped wires).

(2) Destroying an important installation (factory, power station, airfield, supply dump, tank part, communication center).

(3) Seizing and holding an installation until other troops arrive.

b. Operations. (1) If a gap has been located in the enemy lines, the patrol might use this opening. Such a procedure is hazardous as the opening may have been deliberately prepared and covered by fire. The patrol members should preferably filter through individually, and reform in a previously designated area. Airplanes may be used to carry infiltrators across such barriers as rivers or marshes, or for considerable distances into enemy territory. Rafts or small boats may be used when a stream penetrates the enemy position. Diversions such as firing, move-

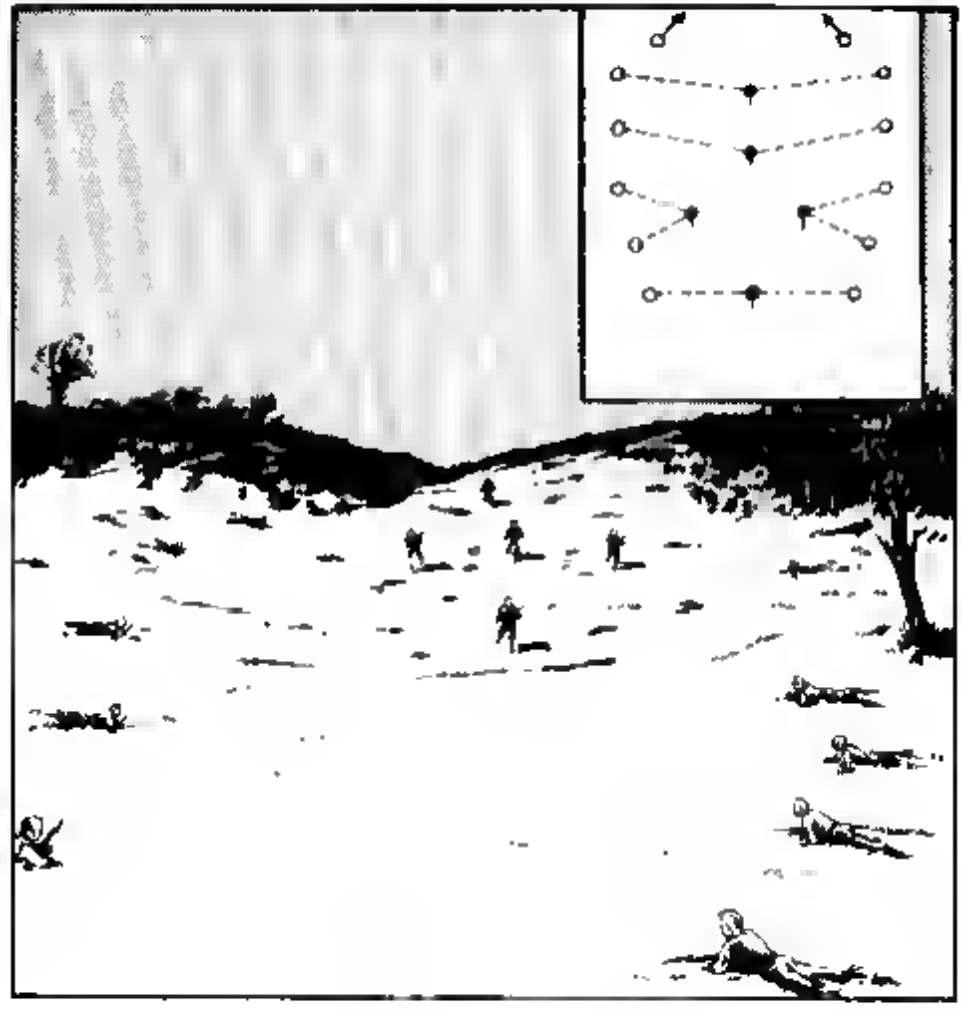

Figure 58. Ambushing an enemy patrol at night.

ment, racing motors, or pyrotechnics may be employed to help a patrol infiltrate the enemy lines. Rough and wooded terrain, poor visibility, bad weather, and an inadequate road net are aids to infiltration.

(2) A patrol determines how close it is to an objective by the external characteristics of that installation. For example, if in search of a command post, the patrol leader should be on the alert for messenger routes, telephone lines, or directional signs. If an enemy sentinel is sighted by a patrol member, this is reported immediately to the leader. Usually, the leader will have the sentinel evaded or silently killed.

(3) The leader makes a final reconnaissance in the vicinity of an installation to determine its nature, defenses, and whether or not reinforcements are nearby. He may decide to change the formation of his patrol before the attack, disposing it to permit simultaneous surprise action from one or more directions and assigning each element its specific mission in the attack.

c. During an attack. Combat patrols may be sent forward by infiltration during the attack. Even when the attack is slowed down or stopped, infiltrators may be able to work their way into enemy controlled terrain to cause confusion, give the impression of an attack from a different direction, disrupt communications or supply, or in other ways confuse and harass the enemy. They may be given definite missions such as the attack of an organized position from the rear, ambush of transport, or the attack of rear area installations. This element attacks quickly, quietly, and vigorously, concentrating all of its efforts on reaching the objective and destroying it. Automatic weapons, appropriately posted, cut off hostile escape. No attempt is made to take prisoners unless this is part of the mission. When the mission is accomplished, the patrol, upon signal, immediately and according to a prearranged plan known to all, leaves the locality. Wounded members are not abandoned, but are given first aid and brought back with the patrol whenever possible. By this means, the enemy defense may be disrupted or softened to be dealt with by supporting weapons and direct assault, or left isolated from

supplies and reinforcements. Thus, the infiltrating patrols may be the opening wedge into enemy defense.

d. Action of small units behind enemy lines. A patrol for infiftratiou may not afways be planned, organized, and sent out as such from friendly lines. Any smafl unit which, during combat, penetrates hostile lines and loses contact with other friendly units, adopts infiltrating tactics and conducts itseff as a combat patrol. The leader of such a unit takes advantage of every opportunity to further the pfan of the commander. He adapts his actions to the situation and may select missions involving considerable risk, if they are vital. A combination of caution, boldness and leadership are essential for the successful accomplishment of such missions.

147. DEMONSTRATION. A patrol whose mission is to deceive the enemy as to the main action by a demonstration, simulates great aggressiveness, but adopts formations and occupies positions which minimize losses. It employs such ruses as moving, firing, and making noises to disclose its position. The patrof leader plans the patrol's actions in advance to insure against exaggeration, since obvious deception may disclose the patrof's purpose to the enemy.

148. MOPPING-UP. a. A combat patrol with a mopping-up mission operates against isolated hostile groups in the rear of our front fines. ft destroys enemy elements by-passed in the attack or otherwise separated from supporting units. When nn enemy element is found, it should be fixed with fiie, envefoped quickly to prevent its escape, and assaulted and overcome with the bayonet, grenade, or other means of close combat.

b. Front-line units mny empfoy patrols to mop up enemy groups threatening their flanks or rear, particularly in defensive situations. Such patrols nre usually furnished by support and reserve units. Mopping-up is essentiaf in densely wooded and buift-up nreas, where opposing forces become so intermingfed thnt no definite front line exists. Ambushing, harassing, and sniping by the enemy must be held to a minimum not onfy because of the loss of our men

and materiel, but because morale suffers when a unit is repeatedly subjected to attacks and fire from unexpected directions.

c. The patrol must not split into a number of ineffective forces. Enemy groups should be concentrated on and reduced one at a time.

d. As the patrol advances, care must be taken to insure that no concealed enemy remain behind. The enemy will wait for a more remunerative and less dangerous target than the patrol, and will not open fire until discovery is certain. One tree may conceal more than one sniper. The mere fact that one or more snipers have been killed does not insure that the tree can be considered clear of the enemy.

149. SEARCHING FOR SNIPERS. a. Patrols are frequently assigned the mission of clearing all enemy snipers or combat groups from wooded terrain. This requires special searching technique since the enemy will be well concealed, and several groups may be disposed in such a manner as to be mutually supporting. There should be no gaps between areas being searched. The men of the patrol operate in teams of two men. Two teams frequently work together; one team moves forward using all available concealment while the other covers its advance. Each patrol goes over its assigned strip thoroughly, searching every possible place of concealment and paying particular attention to trees. Trails should not be followed but may be used as guides. A visual search is not always sufficient; every possible hiding place must be fired into or bayoneted.

b. When it is believed that an enemy sniper or group has been located, one team holds his attention from the front while one or more teams close in from the flank or rear. The searchers must use great care to remain concealed as there may be another enemy position located so as to protect the one discovered. Enemy groups, dug in and well camouflaged, are more difficult to dislodge. Once located, the patrol should not besitate to develop resistance rapidly. One or two members may be able to work forward

from the flank to effective grenade distance, while the remainder keep the enemy occupied from the front.

150. COMBAT IN TOWNS. A patrol which may be required to operate in a town must be composed of experienced scouts who have been trained to work together as a patrol team. Each man must exercise a high degree of initiative, skill, cunning, and courage. (See FM 31–50.)

151. CONNECTION GROUPS. For the employment of a combat patrol as a connecting group. (See FM 74–10.)

Chapter 17

EXERCISES IN PATROLLING

Section I. ADVICE TO INSTRUCTORS

152. GENERAL. The instructor who is successful in teaching men how to perform patrol duty will—

a. Study this manual and pertinent references in FM 5–30, 7–10, 7–20, 21–5, 21–10, 21–11, 21–45, 21–100, 31–50, and 105–5.

b. Be familiar with the provisions of AR 750–10.

c. Use pertinent training films. (See FM 21–7.)

d. (1) Be thoroughly familiar with the training area.

(2) Prepare exercises with realistic situations.

(3) Precede each exercise with a short, pertinent conference, supplemented by charts, blackboard sketches, or sand table lay-out. At the end of the conference, ask and encourage questions.

(4) Where appropriate, represent the enemy by troops, suitably clothed, armed, and trained prior to the conduct of the problem.

(5) Designate umpires for friendly and enemy groups. Insure that umpires have a comprehensive knowledge of each situation and plan of action.

(6) Control the enemy action, as necessary, by radio, telephone, or visual signals to provide realism.

(7) Strive for battle realism. Arrange the exercises, where possible, to allow the participants to use ball ammunition. In some cases enemy details may deliver overhead fire. Use live grenades and booby traps. Dynamite charges may be used to simulate enemy artillery or mortar fire, land mines and grenades; be familiar with and observe regulations pertaining to safety.

(8) Be alert and aggressive. Move about and see as much of the exercise as possible.

(9) Affirm by attitude and criticism that the patrol leader is right if he acts aggressively and energetically, and that patrol members must have complete confidence in his ability.

(10) Conclude each phase of the exercise with a critique, in which errors are pointed out and initiative encouraged.

e. Be able to single out the real patrol leaders.

Section II. CONDUCT OF EXERCISE

153. SUGGESTED CONFERENCE. a. The instructor prepares a large chart showing the area to be used in the exercise. The location of the group under instruction is shown by an X on the sketch. (See fig. 59.) This chart is in front of the group until the practical work is begun.

b. His instructional talk is somewhat as follows:

"The purpose of this exercise is to give you some practical work in combat patrolling. Methods will be discussed. Then you will be given a specific mission. Your task will be to execute the mission correctly.

"The most serious mistake the patrol leader can make in this exercise is to do nothing, or to do so little that it amounts to that. Aggressivenesa is essential. Engagements are won by aggressive action; timid action will not succeed, although the solution may be theoretically perfect. The ideal performance is a combination of driving leadership and tactical soundness.

"Aggressive action and speed go hand-in-hand. The enemy moves at a fast pace, and to beat him will require your best efforts. Never underestimate your enemy. On the other hand, don't attribute superhuman powers to him. No battles are won without some losses, no matter how skillful the leader or brave the men. We should not worry about these losses so long as they are not due to carelessness, faulty instruction, or ignorant, weak leadership.

"Right now, each of you consider yourself as the patrol leader. Don't be afraid of criticism concerning your de-

cisions or leadership. By the same token do not be too critical of the man who uses a solution different from yours provided he is aggressive and his tactical decisions are defensible.

"Your two-squad combat patrol has a mission of keeping hostile reconnaissance groups from gaining information about our troops within the area shown on the chart, which is the area to your front. Our lines are back there to the south (pointing). The enemy is in that direction (pointing north). We don't know exactly where his nearest elements are.

"What formation would you use to start out, Corporal Brown?"

(Corporal Brown gives his solution.)

"Thank you. Here is another solution. This is the diamond formation. tSketch a diamond formation on blackboard as you speak.) The point moves along the edge of those woods (pointingt. tSee fig. 59.) The left flank men move inside the woods, with one man close enough to the edge to see the leader. The right flank men move along that brush. The main body moves along the edge of those woods in a staggered column (pointing) with the leader there (pointing). The rear security group follows the main body at 50 yards.

"Remember, point and flank men, it is your duty to keep in contact with the leader at all times. Only in this way can the leader control the patrol. It is not the job of the leader to keep in contact with his point or flank men. The point or flank men will be the first to gain information. But that information will be of no value unless the leader gets it. If you are to give a signal, such as "enemy in sight," get to a position from which the leader can see you, attract his attention, and then give the signal. If you are not sure that the leader has seen your signal, then one of you must quickly go to him and give him the information. However, only essential information should be thus transmitted.

"What action does the patrol take when it meets a hostile patrol, Sergeant Black?"

(Sergeant Black gives his solution.)

"Yes, that is right. When you destroy or capture the hostile patrol, no members will be able to report that they have met our patrol. Aggressiveness and a quick envelopment are necessary. Do not drive the enemy toward our lines, since he may then accomplish his mission. If you see the enemy first, you have a much better opportunity to plan your attack, cut off his retreat, and kill him.

"However, suppose that two patrols see each other at the same time. What should the patrol do, Private White?"

(Private White gives his solution.)

"No, Private White, you should not withdraw. The leading squad should attack at once, while the other squad works around the flank and rear. The point and flank men may assist by fire if this action does not jeopardize their assigned duty of providing security for the patrol.

"Now, how about this situation? As your patrol arrives at 'A' (points to chart), you observe a hostile one-squad patrol at 'B.'

"Sergeant Green, as patrol leader, give us your order to carry out the mission. As you issue your order, illustrate it on the chart."

(Sergeant Green gives his order as follows:)

"Enemy is there (pointing). Point and flank men, continue in observation. We'll nail them from both sides. Leader first squad, move through those woods (pointing) to the enemy right rear. I will take the second squad to our right and close in on them. Don't let them get away. Questions? (To first squad leader): Move out. (To second squad): Follow me."

Instructor: "That is a good order. We will now proceed with the practical work. Sergeant Black, take command of the patrol. Give your orders. Fix bayonets and take up the diamond formation. The exercise will begin on my signal."

154. PRACTICAL WORK. The patrol advances for 400 yards, and encounters an enemy reconnaissance patrol. Upon contact, the enemy patrol withdraws, if able to do so, and then moves forward again by a different route. The exer-

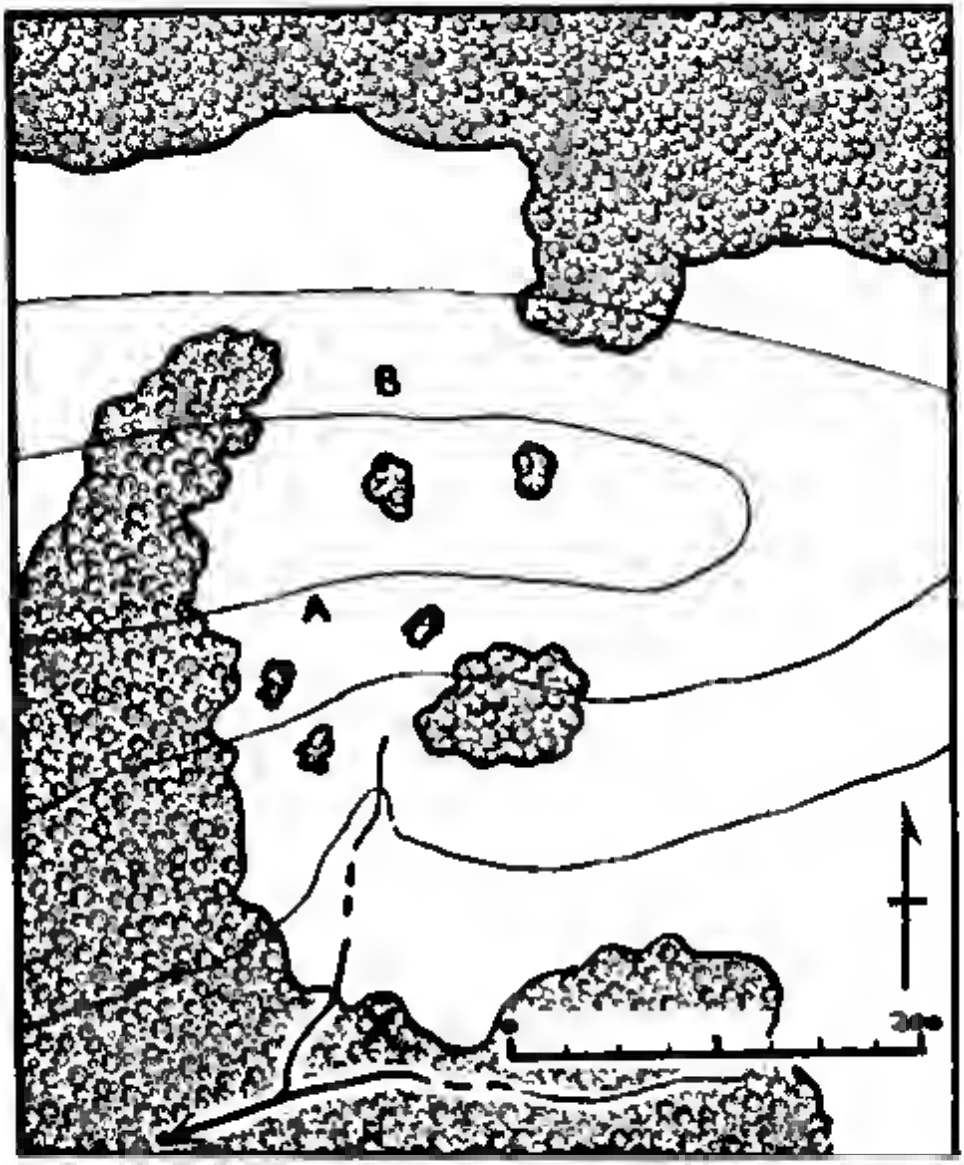

Figure 59. See paragraph 153.

cise ends when the hostile reconnaissance has been enveloped, driven back, or when contact has been lost.

155. CRITIQUE. (To be conducted by the instructor and umpires immediately following the practical work.) The critique should be helpful and cover the following points:

a. Were the orders of the patrol leader clear, definite, and concise?

b. Did the patrol take full advantage of cover and concealment? Did it move quietly?

c. Was security adequate? Was it maintained?

d. Did point and flank men keep in contact with the leader?

e. Did the leader maintain control?

f. When contact with the enemy was made, did the leader get the information immediately?

g. Was the patrol aggressive? Was it reckless?

h. Did the patrol envelop the enemy? Was the envelopment deep enough?

i. Would the patrol have succeeded had ball ammunition been used?

Questions are encouraged during the critique.

Section III. ILLUSTRATIVE PATROL PROBLEM

156. FIRST PHASE. The following oral order was issued by the Company Commander at 0600, 17 November 1942, to the patrol leader. (Paragraph numbers shown in parentheses were not a part of the oral order. They merely are used to show that the five-paragraph field order form is followed.)

ORDER

"Sergeant, I have an operation map here—get where you can see it. An enemy infantry battalion with some pack artillery has been advancing south along the coast and was reported to be in the vicinity of PONGANI yesterday afternoon. (1*a*) (Pointing to location on map. Fig. 60.)

"This battalion marches to PONGANI from KINJAKI 20 November. An Australian patrol will be operating in vicinity of PONGANI. (1*b*)

"Take a patrol of seven men from your squad via this route; more or less parallel to the trail (pointing), to vicinity of PONGANI. Determine absence or number of

the enemy there and report the information obtained to the battalion commander by 1200 day after tomorrow (19 November). Report also the condition of this trail. (Pointing to trail on map.) (2)

"Prepare your men for the patrol and let me know if there is anything you need and can't get. Move out at 0800 today. Meet the battalion where the trail crosses MANGARE CREEK south of PONGANI (here, pointing) at 1500 on 20 November to act as guides. Do not engage in a fight unless it is necessary. (3)

"Take 3 K rations each. Have each rifleman take 40 rounds of ammunition and the automatic rifle man 120 rounds. Take a pair of field glasses, a pair of wire cutters, and of course, a watch. (4)

"Battalion CP—AT KINJAKI until 0600, 20 November. (5*a*)

"Send messages to the battalion CP. (5*b*)

"Any questions? Check by my time. It is now 0615."

157. SECOND PHASE. The sergeant gave his second-in-command, Corporal McDougal, the names of the men to go on the patrol, and while they were being assembled he made a short study of the requirements of the patrol. He then issued the following warning order to his assembled patrol, and, before continuing, satisfied himself that each man understood his particular job:

WARNING ORDER TO THE PATROL

"It is reported that an enemy infantry battalion and some pack artillery were in the vicinity of PONGANI yesterday afternoon. (1*a*)

"Our battalion marches to PONGANI from KINJAKI, where we now are, 20 November. An Australian patrol will be operating in the vicinity of PONGANI. (1*b*)

"Our patrol will move to PONGANI to determine and report the absence or number of enemy in that vicinity, and the condition of this trail. We will leave at 0800 today. Route going out; more or less parallel with this trail shown

here on my map. (2)

"Each of you draw 3 days K ration from the mess sergeant.

"Graham, take 120 rounds for your AR. Brown, check the ammunition the other men have and draw enough from the supply sergeant so that every man will have 40 rounds.

"Corporal McDougal (second-in-command), make a tracing of my map, draw a pair of field glasses from the supply sergeant, and be sure to bring your compass.

"Graham, draw a pair of wire cutters.

"All of you be sure that you have serviceable shoes, no shiny equipment, none that rattles, and no insignia. Leave all papers, letters, documents, or anything that might identify us at the company.

"It is now 0630. Fall out and assemble here at 0745."

158. INSPECTION. The patrol leader assembled his own equipment, studied his map and prepared his order for the patrol. The patrol reassembled at 0745. The leader inspected each member to see that the provisions of the warning order had been carried out, and that each member of the patrol was ready to go on the mission. After the inspection, the leader gave his order. He repeated the parts of the warning order pertaining to the enemy, friendly troops, the patrol mission, and continued as follows:

PATROL ORDER

"Jones, you and Marcinski observe to the right and on my signal reconnoiter any cover to the right for enemy. Do not go so far that you cannot see me for signals. In any event, don't go over 100 yards. Do you understand? (3*a*)

"Brown and Cohen, observe to the left and on my signal reconnoiter any cover to the left for enemy. Do not go so far that you cannot see me for signals. In any event, not over 100 yards. Do you understand? (3*b*)

"Gilucci, you are air-antitank guard, work with Corporal McDougal (second-in-command). Have you got it? (3*c*)

"Corporal McDougal, observe to the rear. When I have

gained 50 yards, send the rest forward in a squad column formation, opened out, 7 yards interval, 5 yards distance. Watch me for signals. Got it? (3*d*)

"Graham, work with me. We will precede the patrol by 50 yards at the start. (3e)

"First objective: our outpost line 800 yards practically due north. The trail passes through it as shown on the map at this stream crossing, right here. (3 *x* 1)

"First assembly point: here. Everybody take a look. (3 *x* 2)

"Password: Powder: reply: River. (3 *x* 3)

"Report any enemy you see to me. Fire on my order only. Don't shoot first, but take cover and watch me for signals. If I am bumped off, our messages will be sent to the battalion commander at the command post here. We must report by noon day after tomorrow. We rejoin the battalion where the trail south of PONGANI crosses MANGARE CREEK 20th November to act as guides for the battalion. I will designate the exact location when we pass it. (3 *x* 4)

"All of you watch for airplanes and gassed areas. (3 *x* 5)

"Do you understand what you are to do? Do you, Marcinski? ff you don't now is the time to ask questions, not down the trail. (3 *x* 6)

"All right, Graham, move out. I'll follow you at 15 yards. Watch me for signals. (5)"

159. THIRD PHASE. The patrol moved out to its first objective in opened-out squad column formation, as it was territory within our outposts. When this point was reached, a new objective was designated and a new assembly point was pointed out on the ground near the old objective. This procedure was repeated upon reaching each objective. Upon entering territory outside of our outpost line, the squad again took up the opened-out squad column formation which was suitable for rapid movement along the trail.

As the patrol approached PONGANI, however, more care was exercised by adopting formations with more dispersion, such as the diamond, skirmish line or wedge, depending upon the type of cover. When traversing jungle

terrain, the eight-man jungle patrol formation was used.

During each halt, all-around security was taken and the night bivouacs were protected by double sentries working in three reliefs. Foxholes were prepared to give all-around security during the night.

On the morning of the 19th, the patrol observed an enemy patrol of six men on the trail south of PONGANI. The enemy patrol was going north and the men were talking freely as they proceeded along the trail. The message taken to the battalion commander by Jones was as follows:

MESSAGE

NO. *1*
TO: CO, 1st Bn.

19 November 1942

No enemy troops observed in vicinity of PONGANI to *1830 18* Nov. Observed 6-man dismounted enemy patrol of riflemen moving north on PONGANI-KINJAKI trail 300 yards north of point where MANGARE CK. crosses the trail at 1030 today. Enemy careless and noisy. Trail passable for foot troops and ¼-ton trucks. MANGARE CK. requires pioneer work for vehicle crossing.

Leader Patrol No. *1* *1040*
Gray, Sgt.

160. FOURTH PHASE. On the afternoon of the 20th November, the patrol met the battalion at the stream junction south of PONGANI, and guided it to PONGANI. An oral report was made to the company commander.

Section IV. SUGGESTED EXERCISES

161. RECONNAISSANCE PATROL. a. Purpose of exercise. To instruct in the operation of a reconnaissance patrol during daylight. (See fig. 61.)

b. Troops. (1) *Enemy.* A four-man detail to emerge from woods "A" and start digging-in a MG in partial defilade at "B" on Hill 34.

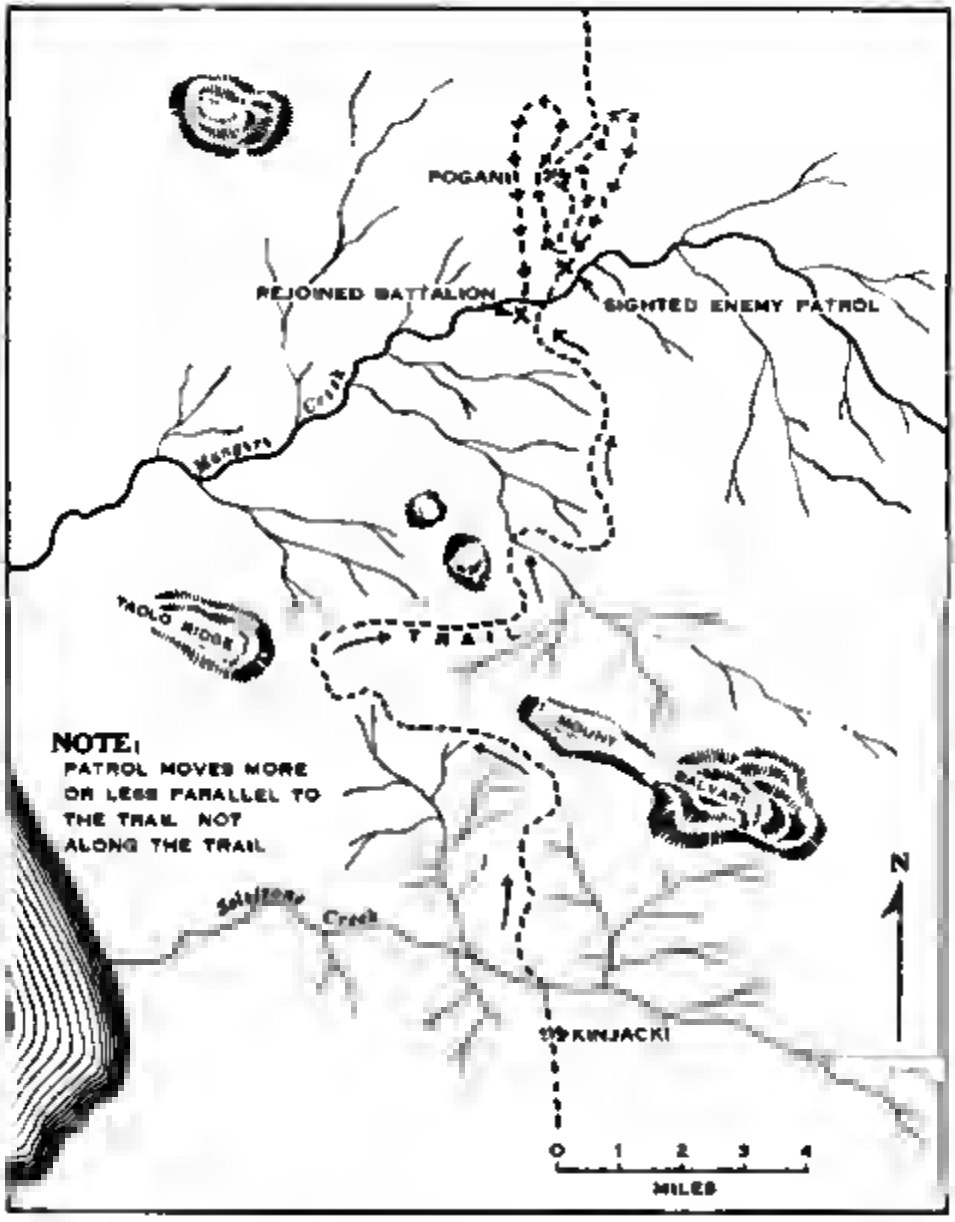

Figure 60. See paragraph 156.

(2) *Friendly.* A six-man reconnaissance patrol.

c. Conference. (At point X on sketch, fig. 61.) Cover all pertinent points that are desired to be brought out in the exercise.

d. Practical work. (1) SITUATION. Enemy ground forces are in that direction (pointing). Two small enemy trucks and a few men were seen by our planes 4 miles away 3 hours ago. We are at point X on this sketch. (See fig. 61.) Our advanced units are 1 mile to the rear. You are ordered to take a six-man reconnaissance patrol to Hill 33 (pointing) and remain there in observation until hours, recording and reporting all enemy activity in that area. Messages will be sent to your company commander here. Report here on your return.

(2) *Requirement.* Actions and orders of the patrol leader and the execution of the orders by the patrol. Patrol leader, take charge.

e. Termination of exercise. Stop the action at hours.

f. Critique. (Have critique on Hill 33. Show another chart of terrain with route marked through woods to left. Show chart with message and sketch patrol leader might have sent back; emphasize the accuracy of information and the time it took to get it back.) Include the instructor's solution. Encourage questions.

162. ACTIONS OF COMBAT PATROL PASSING OBSTACLE. a. Purpose of exercise. To illustrate the actions of a combat patrol crossing a stream, and advancing in enemy territory prepared to destroy small enemy detachments or installations encountered. (See fig. 62.)

b. Troops. (1) *Enemy.* None.

(2) *Friendly.* A combat patrol, which may consist of one or two squads.

c. Conference (at point X on sketch, fig. 62). (1) Cover pertinent points that are desired to be brought out in this exercise.

d. Practical work. (1) *Situation.* Yesterday our troops attacked in that direction (pointing) and drove the enemy southwest along that stream. The valley and hills to the south are lightly held by the enemy. Your one (two) squad combat patrol is directed to cross the stream there (pointing) and to move along the south side of the stream as

shown on this sketch for 2 miles. (Give leader sketch, fig. 62.) Destroy any enemy or installations encountered. Return by 1100.

(2) *Requirement.* Actions and orders of the patrol leader and the execution of the orders by the patrol. Patrol leader, take charge.

e. Termination of exercise. Stop the action when the patrol reaches point A. (See fig. 62.)

f. Critique. Include the instructor's solution (chs. 10,

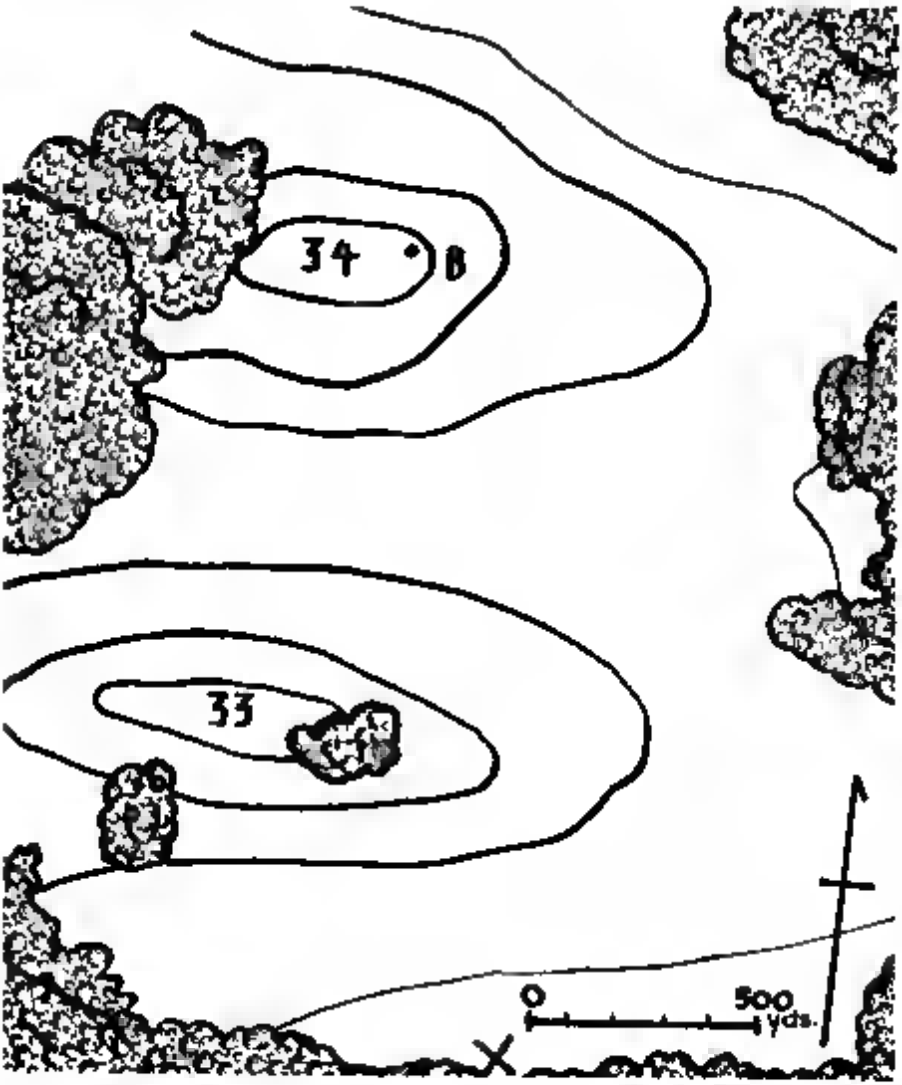

Figure 61. See paragraph 161.

11, and 12, and pars. 94, 115, and 120). Encourage questions.

163. COMBAT PATROL ENGAGED IN INFILTRATION. a. Purpose of exercise. To instruct in raiding by infiltration by day. (See fig. 63.)

b. Troops. (1) *Enemy.* A clerk, a driver, and a three-man fatigue detail loading a truck with ammunition from an ammunition dump. Two sentinels are to be posted. The

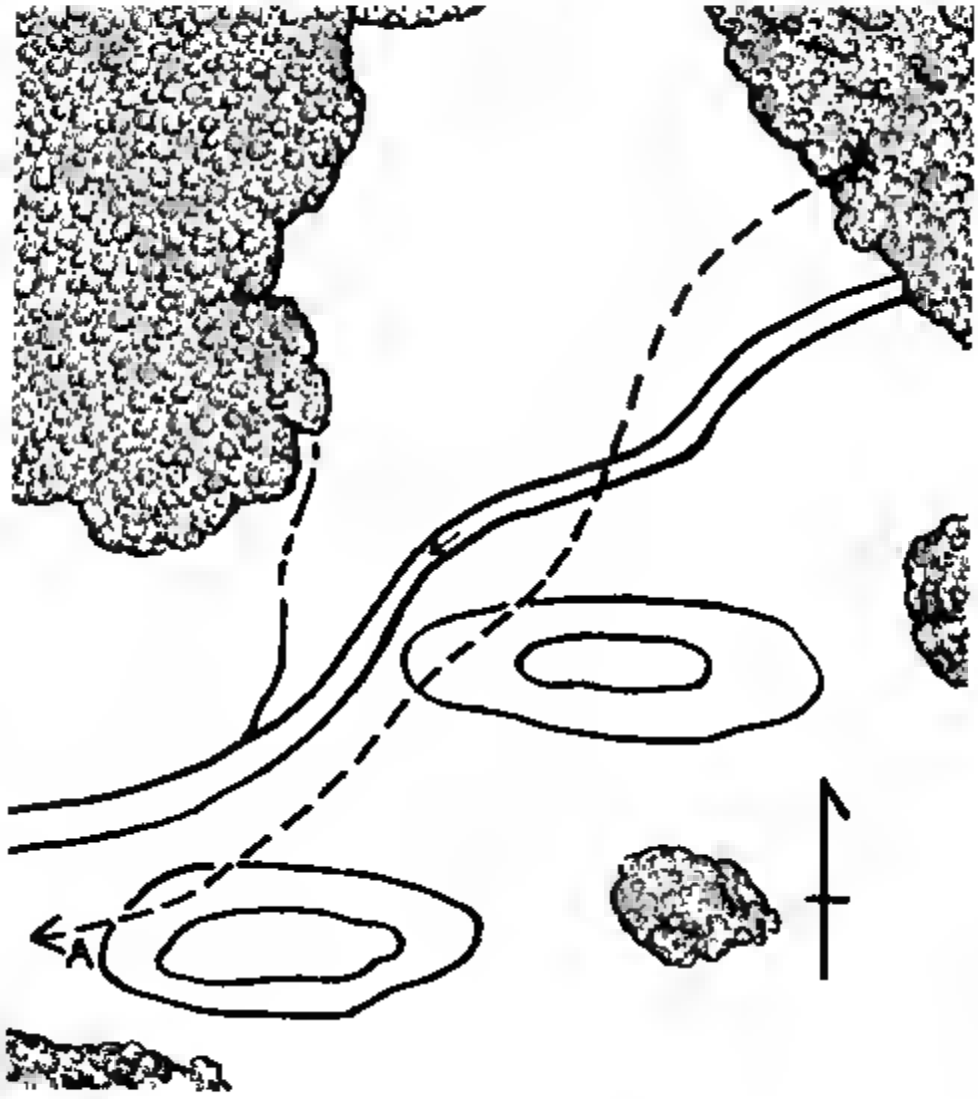

Figure 62. See paragraph 162.

detail and truck are to withdraw unless captured. (Accomplishment of mission might be simulated by detonating dynamite charges.)

(2) *Friendly.* A one-squad combat patrol on an infiltration mission.

c. Conference (at point X on sketch, fig. 63). (1) Cover pertinent parts of chapters 10, 11, and 12 and paragraphs 94, 115, 129, and 146.

d. Practical work. (1) *Situation.* Your one-squad combat patrol is to destroy enemy installations and infiltrate as far west aa that road. (Pointing.) As your patrol arrives here, at the edge of the woods, in eaemy territory, you see through your field glasses an enemy truck and a loading detail, 500 yards to the front. (Look closely and you can see them.) (Pointing.)

(2) *Requirement.* Actions and orders of the patrol leader and the execution of the orders by the patrol. Patrol leader, take charge.

e. Termination of exercise. Stop the action when the patrol reaches the road.

f. Critique. Include the instructor's solution, (pertinent parts of chs. 10, 11, and 12 and pars. 94, 115, 129, and 146). Encourage questions.

164. COMBAT PATROL MAKING DIRECT ASSAULT. a. Purpoae of exercise. To illustrate the actions of a combat patrol making a direct assault at night. (See fig. 64.)

b. Troopa. (1) *Enemy.* An outguard consisting of one rifle squad with a light machine gun attached. (Outguard to permit two of its members to be captured without engaging in hand-to-hand combat.) (See FM 7–10.)

(2) *Friendly.* A combat patrol of from one squad to a reinforced platoon.

c. Conference (at point X on sketch, fig. 64). (1) Cover all pertinent points that are to be brought out in the exercise.

d. Practical work. (1) *Situation.* An enemy outguard has just been definitely located in the vicinity of that road junction (indicate on the groundj. Your mission is to at-

tack the hostile outguard, secure two prisoners, and bring them back here.

(2) *Requirement.* Actions and orders of the patrol leader and the execution of his orders by the patrol. Patrol leader, take charge.

e. Termination of exercise. Conclude the action as soon as the prisoners have been secured or when it becomes evident that the patrol will fail in its mission.

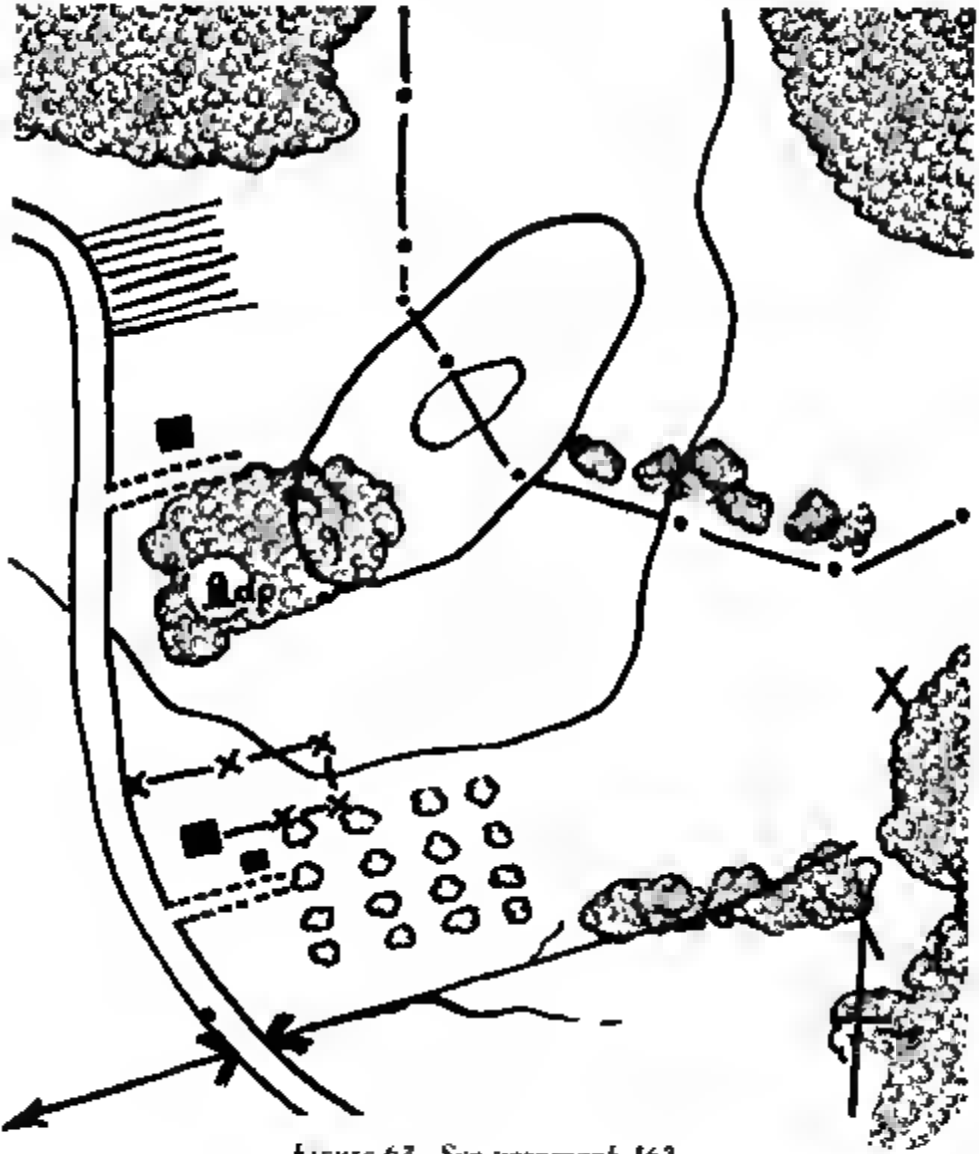

Figure 63. See paragraph 163.

f. Critique. Include the instructor's solution, (chs. 10 to 14, and pars. 94, 144, and 145). Encourage questions.

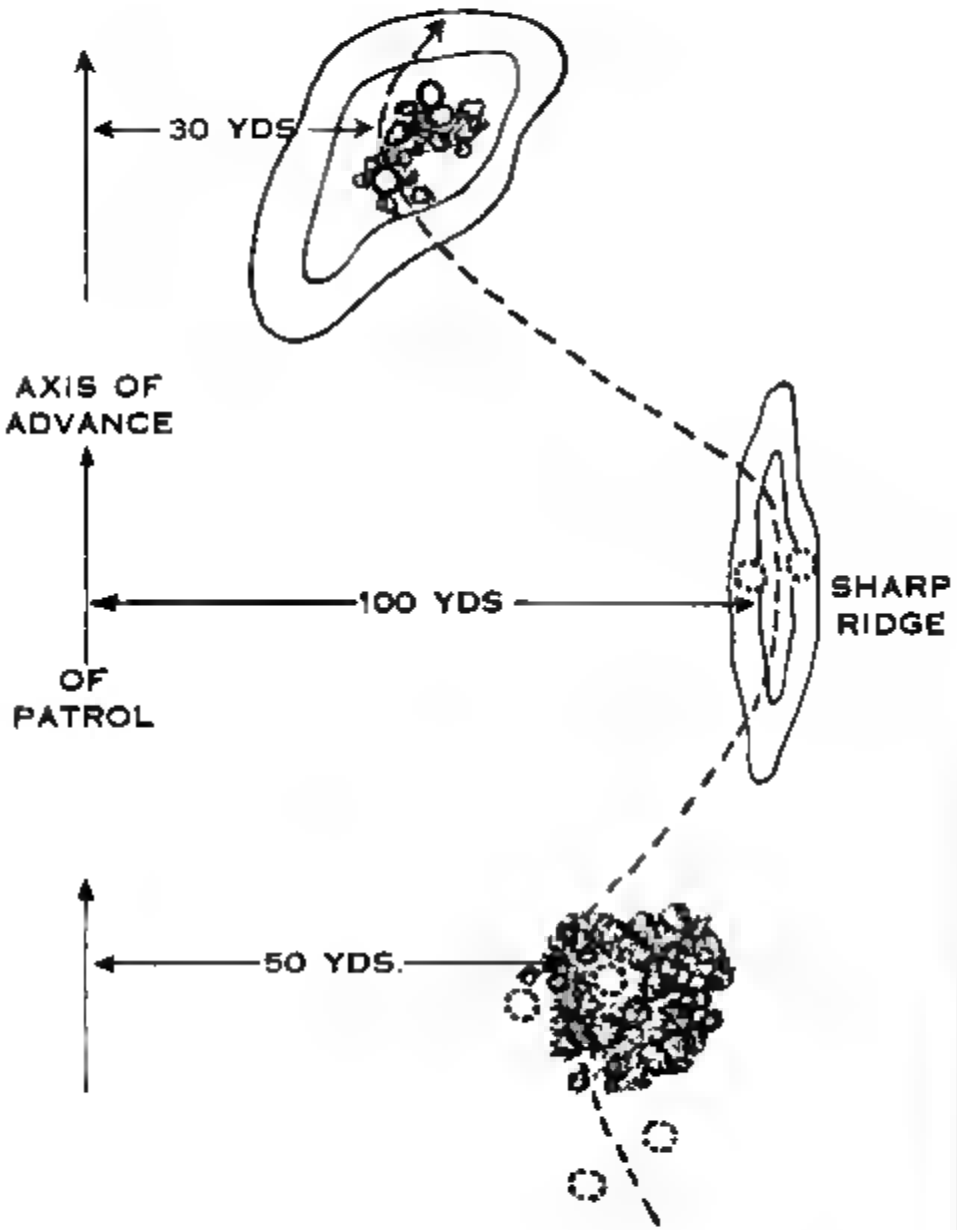

Figure 64. See paragraph 164.

PART THREE

SNIPING

Chapter 18

SNIPING

Section I. GENERAL

165. SNIPING. A sniper is an expert rifleman, well qualified in scouting, whose duty is to pick off key enemy personnel who expose themselves. By eliminating enemy leaders and harassing the troops, sniping softens the enemy's resistance and weakens his morale. Snipers may operate in pairs, in groups, or singly. Snipers may be employed by company commander and platoon leaders in either the offense or defense. There are two types of snipers: mobile snipers and those who operate stationary observer-sniper posts.

a. Mobile snipers. The mobile sniper acts alone, moves about frequently, and covers a large but not necessarily fixed area. He may be used to infiltrate enemy lines and seek out and destroy appropriate targets along enemy routes of supply and communication. It is essential that the mobile sniper hit his target with the first round fired. If the sniper is forced to fire several times, he discloses his position and also gives the enemy opportunity to escape. Therefore, although the mobile sniper must be an expert shot at all

ranges, he must be trained to stalk his target until he is close enough to insure that it will be eliminated with his first shot.

b. Stationary observer-snipers. Teams of two snipers may work together, operating sniping posts assigned definite sectors of fire. Each sniper is equipped with field glasses. His rifle has telescopic sights. One man acts as observer, designating the targets discovered to the firer and observing the results of the fire. Using field glasses, the observer maintains a constant watch. Because this duty is tiring, it is necessary that the observer and the sniper exchange duties every 15 to 20 minutes. A range card covering the sector of fire of each sniping post is made to facilitate target designation and target location. (See par. 167.)

166. SNIPING POSTS. Sniping posts should be located in positions offering a clear field of fire over the designated area, concealment for the men at the post, and a covered approach from the rear. Positions with covered approaches from a flank should be avoided. Positions should be well camouflaged and not on the skyline or against a contrasting background. (See par. 7.) Smoking is prohibited in the post, the rifle barrel must not protrude noticeably, and care must be taken that the muzzle blast does not kick up dust and reveal the location of the firer. Alternate posts should be prepared to permit the sniper to change his location frequently.

167. RANGE CARDS. Upon occupying an observer-sniper post, the first task is to make a range card covering the sector assigned to that post. (See fig. 65.) The purpose of the range card is to make target designation easier to give and follow. Note that the entire sector to be covered is divided into subsectors having prominent landmarks as their boundaries. The subsectors are numbered from right to left. Using the range card, the observer, upon locating a target designates it as follows:

"Range (pause).
"Left center of subsector No. 2.
"Rifleman at base of tree."

The observer, in designating the target, pauses after giving the range to allow the sniper time in which to set his sights before looking for the target (provided an accurate sight setting is to be used).

168. HOLD-OFF. When the telescopic sight is used at varying ranges or against fleeting targets it is necessary to "hold-off" in order to hit the target. For ranges varying from 0 to 600 yards it is recommended that the sight be zeroed at 400 yards. The distance that it is necessary to

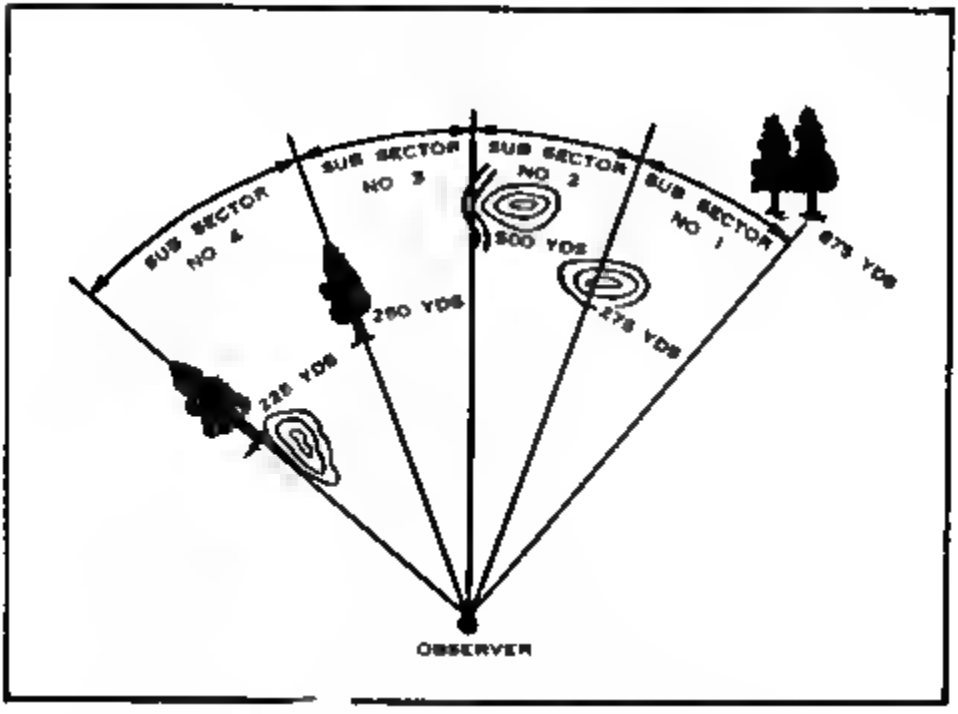

Figure 65. Observer sniper range card.

"hold-off" at varioua ranges ia shown in figure 66. For ranges greater than 600 yards an accurate sight setting is necessary. For areas having short fields of fire, in cities and towns, or in close country, it may be desirable to zero the sight at shorter ranges.

169. EQUIPMENT. Specially designed rifles with telescopic sights sre used in fixed sniping posts or where long-range firing is contemplated. The telescopic sight docs not

make the rifle or firer more accurate. Accuracy depends on the firer. The shorter barreled carbine may be more effective in close country. A sniper with a mission behind enemy lines may carry a revolver, an automatic rifle, or a submachine gun. The rifle, equipped with a telescope mounted directly over the receiver is designed especially for use in sniping. The use of the rifle with the telescopic sights makes it easier for a sniper to pick up obscure targets which he has located with field glasses, and, in the early morning and at twilight, prolongs the length of time during which the sniper is able to distinguish targets in the field. In bright moonlight, effective fire can be delivered on distinct targets at considerable distances. Rifles not equipped with the telescopic

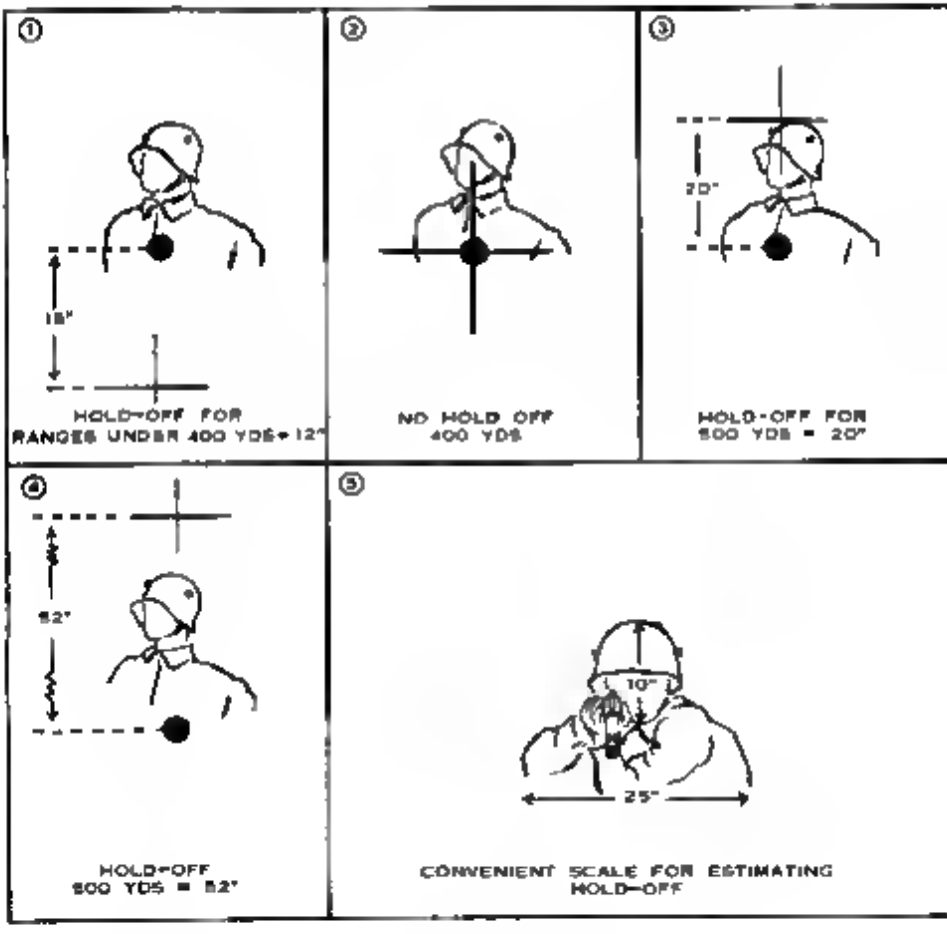

Figure 66. Hold-off distances.

sight can obtain an effective range of 30 to 50 yards at night by means of a strip of white tape along the barrel from the front to rear sight.

170. TRAINING. a. Within each platoon, several men will be given sniper training. These men will be selected from among the most proficient marksmen in the unit and will be given training in scouting and camouflage and in the use of the sniper's rifle. Snipers, in addition to being expert shots, must be trained to estimate ranges accurately, to select advantageous firing positions, to move silently through difficult terrain, and to be proficient in the use of maps, aerial photographs, and the compass. Also, they must be physically agile and hardened and able to sustain themselves for long periods of detachment from their unit. One of the men undergoing this special training will be designated to carry the sniper's rifle, but the platoon leader may, upon occasion, designate other men to act as snipers, employing carbines or rifles which do not have the telescopic sight.

b. The following steps in sniper training will serve as a guide in the development of skill and proficiency:

(1) Advanced training in rifle marksmanship.

(2) Elimination based on shot groups fired at 300 and 600 yards.

(3) Additional practice in range estimation under all conditions of visibility.

(4) Training in identifying and locating sounds to include those of weapons.

(5) Training in selection of firing positions.

(6) Training in observation and visual searching of areas under varying conditions of visibility.

(7) Use of concealment and camouflage.

(8) Firing at field targets at unknown distances with iron sights.

(9) Nomenclature and care of telescopic sight.

(10) Zeroing telescopic sight at 400 yards.

(11) Study of trajectory, drift, effects of wind and light.

(12) Known-distance firing with telescopic sight to determine hold-off.

(13) Firing at unknown ranges, using telescopic sight.
(*a*) Fairly obvious targets.
(*b*) Concealed targets.
(14) Trsining in selection of and movement by concealed routes.
(15) Final exsmination over terrain not previously used.

Section II. EXERCISES IN SNIPING

171. TYPE OF EXERCISE. Exercises suitsble for the instruction of the individual sniper and those involving the selection, occupstion and use of the sniper's firing position should be used to instruct all members of the orgsnization who may be employed as snipers. The exercises should be varied and complete enough to include all the likely situations in which a sniper may become involved. They should include the use of concealment, cover and individual camouflage. They should include some exercises thst require firing from trees, ruins, and like positions. The sniper must be adept at engaging fleeting targets and such targets should be a part of all exercises prepared for the sniper. The appearance of objects and the visibility at dusk and dawn should be considered in preparing the exercises. Snipers should be expert in estimating ranges, searching sreas, and determining likely locations for the enemy. They should be carefully instructed to recognize enemy uniforms, equipment, and characteristics. They should know enough about the enemy's orgsnization and tactics to be able to pick off the officers, noncommissioned officers, and other key personnel. The following are examples of suitsble exercises in sniping. Those which involve firing msy be conducted at dawn, dusk, in fog, rain, bright moonlight, with the sun in back of the sniper, and with the sun in front of the sniper.

172. SNIPING POSITIONS. a. Purpose. To teach the art of selecting concealed or inconspicuous firing positions.

b. Methods. (1) The soldier is conducted to a sniping ares. A target is indicated to him. He is told to select and occupy the best firing position in the immediate vicinity of the instructor snd to simulate firing a shot st the desig-

nated target. The instructor then comments on the good and bad points of the soldier's selected position and actions.

(2) In the training area the instructor selects a piece of terrain as the assigned sector of fire for an observer-sniper post and marks by panels (or flags) several possible locations for a sniping post. He asks the men being trained to choose the best of these positions for a sniper post, and the second best as an alternate location. He requires each man to name the characteristics which caused him to select or reject each of the possible locations. The instructor then gives his own selections with a discussion of the advantages and disadvantages of each post. He repeats the exercise using varied and unfamiliar terrain, requiring the men to select positions without the use of panels to guide their selections.

c. Common errors. The selected position is too exposed. The sniper will probably be revealed by the outline of his helmet, shoulder, forearm, or leg, depending upon the angle from which he is viewed. The selected position is in the sunlight instead of in the shade. It does not have a covered route of withdrawal. The soldier's movements in occupying the sniping position are too abrupt, and his movements in the simulated firing are not sufficiently smooth and deliberate.

173. CAMOUFLAGE. a. Purpose. To practice the use of natural camouflage.

b. Methods. (1) The soldier is required to examine a terrain area. Having previously been instructed in methods and use of camouflage, the soldier is told to camouflage himself as a prone sniper on that particular piece of terrain, using earth and vegetation in that locality. He is given ample time for the task. When the soldier reports that he has completed the task of camouflaging himself, he is told to stand up and observe while an assistant instructor camouflages himself as a prone sniper. The soldier is then taken about 400 yards in front of the camouflaged assistant and is required to study the assistant while he is motionless, and then while he is creeping and crawling. The instructor briefly comments on the effectiveness of the soldier's camouflage

or shows how it could have been improved. The student is then brought back to his original location and told to camouflage himself again, making use of the knowledge that he has gained. This exercise should be repeated on other terrain.

(2) The instructor designates an area to be covered by fire. He requires the men to select sniping positions to cover the area. He allows the men 30 minutes to occupy their post. The instructor then moves out 400 yards to the front and moves laterally across the area, gradually approaching the post (or posts). He records the distance from which he first locates the post. Another instructor, using binoculars, follows the same procedure. This exercise should be repeated until the men become proficient in concealing their locations.

c. Common errors. (1) The camouflage used does not blend with the natural features on the ground.

(2) Shiny equipment has not been camouflaged.

(3) Hands and face are exposed.

(4) Too much camouflage has been used.

(5) Grass or vegetation has been trampled down while gathering camouflage material.

(6) The outline of the soldier's helmet or body has not been broken.

174. SEARCHING AREAS. a. Purpose. To give practice in searching areas.

b. Methods. (1) In any suitable limited area, the instructor places seven or eight men in well concealed positions, giving each a number and signal, so that No. 1, No. 2, etc., may move when signaled. He has a number of scout pairs select, within designated limits, a suitable location for a sniper's post to cover the area in which the men are hidden. He allows the scout pair 15 or 20 minutes in which to organize its area (dividing it into sectors and subsectors, selecting landmarks, and estimating ranges). He requires each pair to make a range card of the area, showing sectors, landmarks and ranges. The instructor then signals No. 1 target to appear, and tells the observer to search out and designate it to his rifleman. Each rifleman fires one blank cartridge as soon as he locates the target. Both the observer

and sniper then record their observation in the prescribed manner. The instructor signals No. 1 target down. After a short interval, he signals No. 2 target to appear, and the procedure is repeated. If practicable, an umpire may be stationed with each post, and the scout pairs may then be rated as to:

(*a*) Accuracy of target designation.

(*b*) Recognition of target from designation.

(*c*) Time between appearance of target and firing of shot.

(*d*) Accuracy of sight setting. (Iron sights.)

(*e*) Correctness of range cards, including estimation of ranges.

(*f*) Selection of position and use of camouflage.

(2) Upon completion of the exercise, each man concealed should exhibit himself or plant a flag at his position. The instructor then holds a critique of the exercise, encouraging questions and discussion. This exercise should be repeated on varied ground, until the students are thoroughly familiar with the usual procedure of sniping.

(3) This exercise is generally the same as (1) above except that the targets disclose themselves by movement.

(4) This exercise develops speed and proficiency in finding targets, and in selecting aiming points on the targets found. Five firing positions, about 100 yards apart in depth, are selected in a sniping area, and a sandbag placed at each. An assistant instructor is placed at a position not over 600 yards distant from the first firing position to represent an enemy observer. This man is well concealed but may be detected by the proper use of the rifle telescope or field glasses and by proper searching technique. The soldier undergoing instruction is informed that the correct procedure in searching areas with his telescope is to search a narrow strip close to him from right to left, and then to search a second strip from left to right, farther away, but overlapping the first strip. He should continue in this manner until about 500 yards of his field of view has been covered in depth. The soldier is then informed that he will receive practice in searching the area. If, during this search, he should find any target, he will estimate the range and place his rifle on the nearest sandbag, and align his sights on the

target at the required aiming point for his estimated range. The soldier is then placed at the first firing position and told to search for targets. When the soldier has found a target and placed his rifle on the sandbag, the instructor asks him the estimated range and checks the aiming point on the target to see that it is correctly aligned. If the estimate is incorrect, the instructor tells the soldier the correct range and mentions any terrain or weather factors that the soldier may have not taken into consideration. The soldier is then taken to the second firing position. The man representing the enemy takes his next prearranged position and the exercise is then repeated. Care must be taken when searching into the sun that the telescope does not reflect the sunlight. The exercise is repeated on a forward slope and again on a reverse slope.

c. Common errors. Improper searching methods. Incorrect range estimation.

175. LOCATION AND RECOGNITION OF WEAPONS BY SOUND. a. Purpose. To give practice in detecting, locating and recognizing weapons by sound.

b. Method. The instructor conceals several men in a suitable area. They are to fire various weapons on his signal. The men undergoing training select suitable sniping positions and make range cards. When they are ready, the instructor has the various weapons fired one at a time. He requires the men to identify each weapon and to locate it accurately on their range cards. If available, some foreign weapons should be used. The instructor has the exercise repeated on varied terrain and until the men can locate accurately and identify the weapons.

176. SELECTION OF ROUTES OF APPROACH TO SNIPING POSITION. a. Purpose. To give practice in the selection of routes of approach to sniping areas and firing positions.

b. Method. A sniping area and locality assumed to be occupied by the enemy is indicated to the soldier. The instructor tells the soldier to study the ground and to select a route forward to an indicated position in the sniping area.

When the soldier has made his selection (by pointing, describing, or actually traversing the route), he is required to explain the reasons for his solution. The instructor makes comments and points out any errors made. The soldier is then taken to a designated firing position in the sniping area. He is told that he has just fired a shot from that position and must select his next firing position and the route to it. When the soldier has presented his solution, he is required to analyze it as before.

c. Common errors. (1) Improper use of cover and concealment.

(2) Improper utilization of shade and shadow.

(3) Failure to select background so as to render the sniper inconspicuous, both while moving and when stationary.

177. MOVEMENT. a. Purpose. To develop skill and agility in moving quietly and yet with all practicable speed consistent with the sniper's mission.

b. Method. Individuals and small groups are rehearsed in creeping and crawling, sliding over obstacles, crawling under wire, moving through thick underbrush, and climbing trees. An obstacle course is suitable for this type of training. At times, the instructor should state that the enemy is assumed to be present; at other times, the enemy should be represented by one or more observers or reconnaissance patrols. This training should be supervised and errors pointed out and corrected. The exercise is repeated whenever practicable, and under different conditions of visibility, such as in ground mist or at night. Practice should be encouraged on the part of individuals when other forms of training are not scheduled and particularly during periods of field training when permitted by maneuver conditions.

c. Common errors. Quick movements and unnecessary noise by the soldiers.

178. STALKING. a. Purpose. To give practice in stalking.

b. Method. In a suitable area, the instructor selects a starting point and places a target visible at 700 yards. The men being trained wear sniper suits or suitable camouflage.

They are required to carry their rifles and approach the target using covered and concealed routes. They must move to the nearest cover position from which the target can be engaged (on varied terrain this will normally be at ranges of 200 yards or less). Two observers, one with binoculars, take up positions at the target. Each time the stalker is seen a red flag is waved, the stalker stops, and an assistant drives a stake in the stalker's position. This procedure continues until the stalker reaches a suitable firing position. He then signals the instructors who clear the target area and the stalker fires on the target. The target is marked. The instructor then proceeds with the man to each stake and points out how he exposed himself. This exercise is repeated until the stalker can approach the target without being picked up.

179. USE OF TELESCOPIC SIGHT AND HOLD-OFF AT KNOWN AND UNKNOWN DISTANCES. a. Purpose. To teach the employment of the telescopic sight and hold-off at known and unknown distances.

b. Method. (1) On the known distance range, the instructor has the men zero their telescopic sights at a range of 400 yards by actual firing. When their sights are zeroed, they fire at targets at 300 and 500 yards, noting where the bullet strikes. The instructor then has the men fire at the same targets using hold-off (aiming high for targets over 400 yards and low for targets under 400 yards) until they are proficient in judging the amount of hold-off needed at each range to insure accurate fire. The training is continued with targets at 100, 200, and 600 yards.

(2) In a suitable area with varied terrain, the instructor places targets at various ranges from 100 to 600 yards. The men zero their rifles at 400 yards. The instructor has the men fire at each target, estimating the range and proper hold-off. The exercise is repeated on new terrain until the men are proficient in hitting targets at unknown ranges. As the training progresses, the targets should be more concealed.

180. FIELD FIRING. a. Purpose. To develop speed in locating targets, estimating the range, judging the hold-off and firing accurately without giving away the sniper's position.

b. Method. The sniper is allowed four rounds without time limit to hit one E and one F silhouette target, which are exposed at different times from a foxhole from 200 to 400 yards away. Four sets of targets (four foxholes) are used for each exercise, each set being exposed from a different foxhole. He is scored as follows:

	Possible
E target hit—2	2
F target hit—3	3
Each round saved	4
	$9 \times 4 = 36$

Upon signal, the operator in the foxhole displays a target until it is hit or until four rounds have been fired. On the second firing of the exercise, the sniper may be allowed only one minute to search the area, find the target, aim and fire on both silhouette targets. On the third firing of the exercise, only the F target may be exposed and for thirty seconds. The sniper is allowed only one round to hit it; a hit is scored as seven points. The total possible score for the three exercises is 100.

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